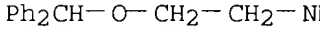
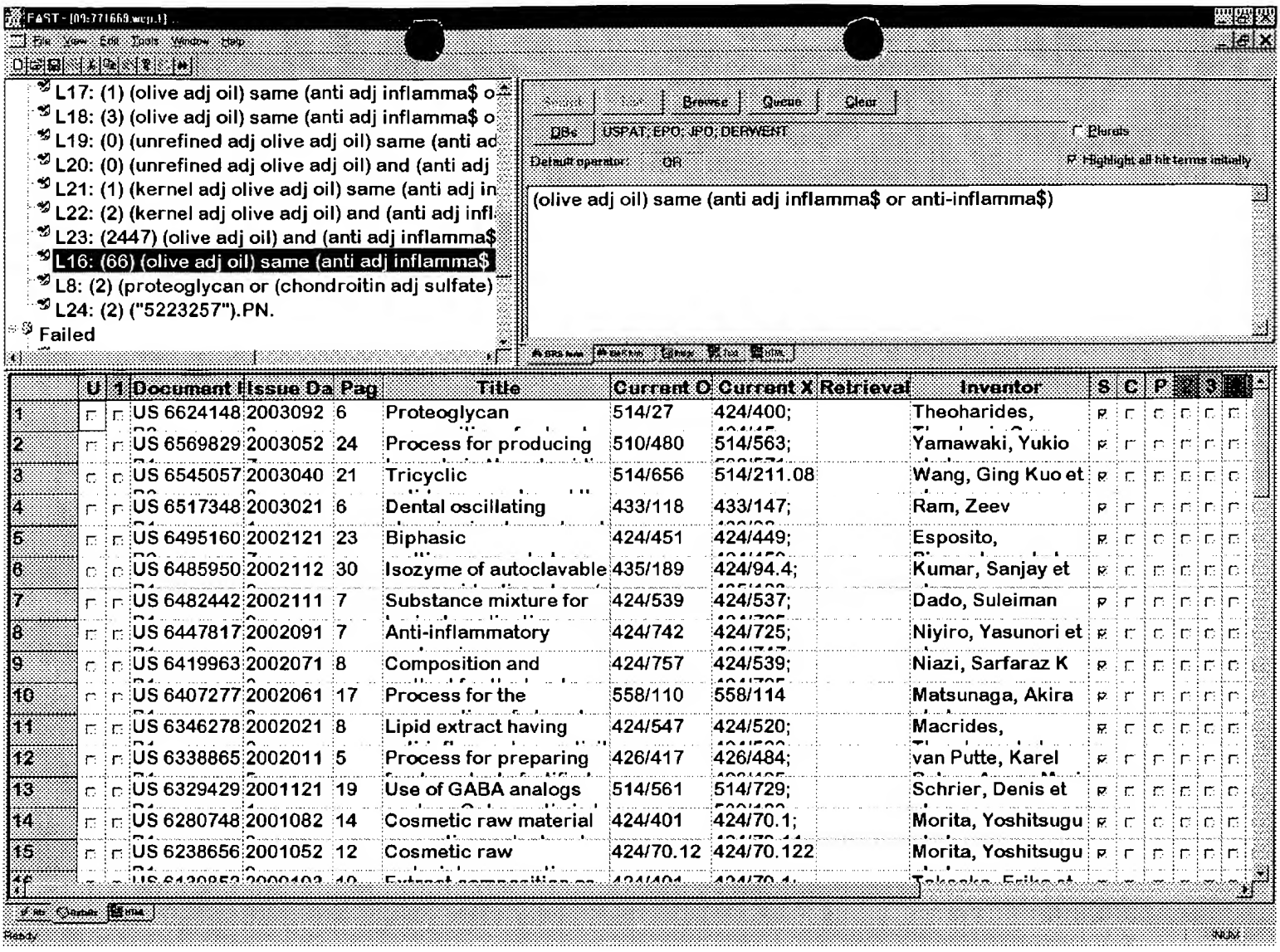
L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 58-73-1 REGISTRY
CN Ethanamine, 2-(diphenylmethoxy)-N,N-dimethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ethylamine, 2-(diphenylmethoxy)-N,N-dimethyl- (7CI, 8CI)
OTHER NAMES:
CN .alpha.-(2-Dimethylaminoethoxy)diphenylmethane
CN .beta.-Dimethylaminoethanol diphenylmethyl ether
CN .beta.-Dimethylaminoethylbenzhydrylether
CN 2-(Benzhydryloxy)-N,N-dimethylethylamine
CN 2-(Diphenylmethoxy)-N,N-dimethylethylamine
CN Benzhydramine
CN Dimedrol base
CN **Diphenhydramine**
CN DPH
CN FAR 90X2
CN N-[2-(Diphenylmethoxy)ethyl]-N,N-dimethylamine
CN NSC 665800
CN O-Benzhydryldimethylaminoethanol
CN Probedryl
FS 3D CONCORD
MF C17 H21 N O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3062 REFERENCES IN FILE CA (1907 TO DATE)
62 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3066 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)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L23: (2447) (olive adj oil) and (anti adj inflamma$
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1 US 6624148 2003092 6 Proteoglycan 514/27 424/400; Theoharides,
2 US 6569829 2003052 24 Process for producing 510/480 514/563; Yamawaki, Yukio
3 US 6545057 2003040 21 Tricyclic 514/656 514/211.08 Wang, Ging Kuo et
4 US 6517348 2003021 6 Dental oscillating 433/118 433/147; Ram, Zeev
5 US 6495160 2002121 23 Biphasic 424/451 424/449; Esposito,
6 US 6485950 2002112 30 Isozyme of autoclavable 435/189 424/94.4; Kumar, Sanjay et
7 US 6482442 2002111 7 Substance mixture for 424/539 424/537; Dado, Suleiman
8 US 6447817 2002091 7 Anti-inflammatory 424/742 424/725; Niyiro, Yasunori et
9 US 6419963 2002071 8 Composition and 424/757 424/539; Niazi, Sarfaraz K
10 US 6407277 2002061 17 Process for the 558/110 558/114 Matsunaga, Akira
11 US 6346278 2002021 8 Lipid extract having 424/547 424/520; Macrides,
12 US 6338865 2002011 5 Process for preparing 426/417 426/484; van Putte, Karel
13 US 6329429 2001121 19 Use of GABA analogs 514/561 514/729; Schrier, Denis et
14 US 6280748 2001082 14 Cosmetic raw material 424/401 424/70.1; Morita, Yoshitsugu
15 US 6238656 2001052 12 Cosmetic raw 424/70.12 424/70.122 Morita, Yoshitsugu
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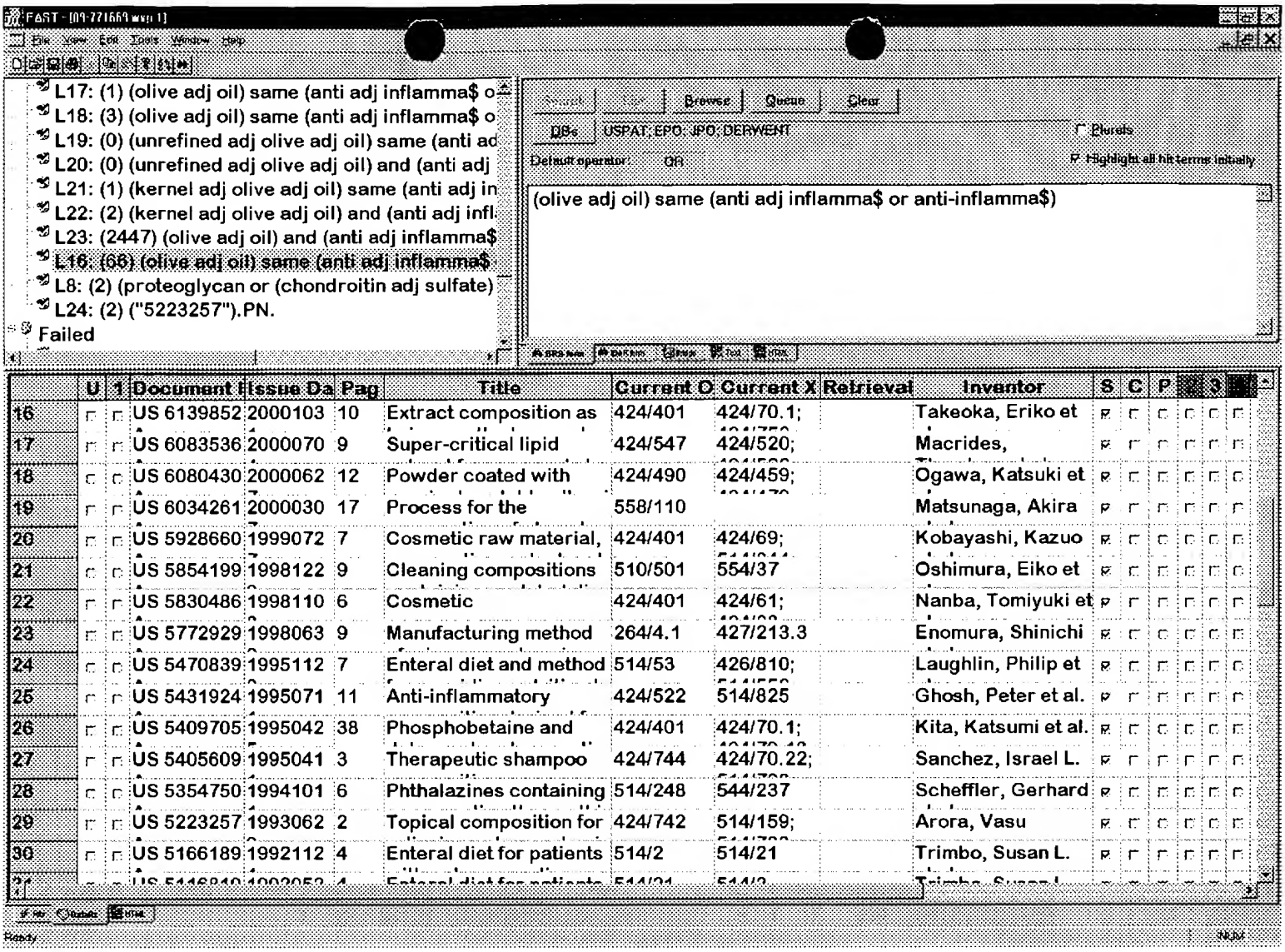

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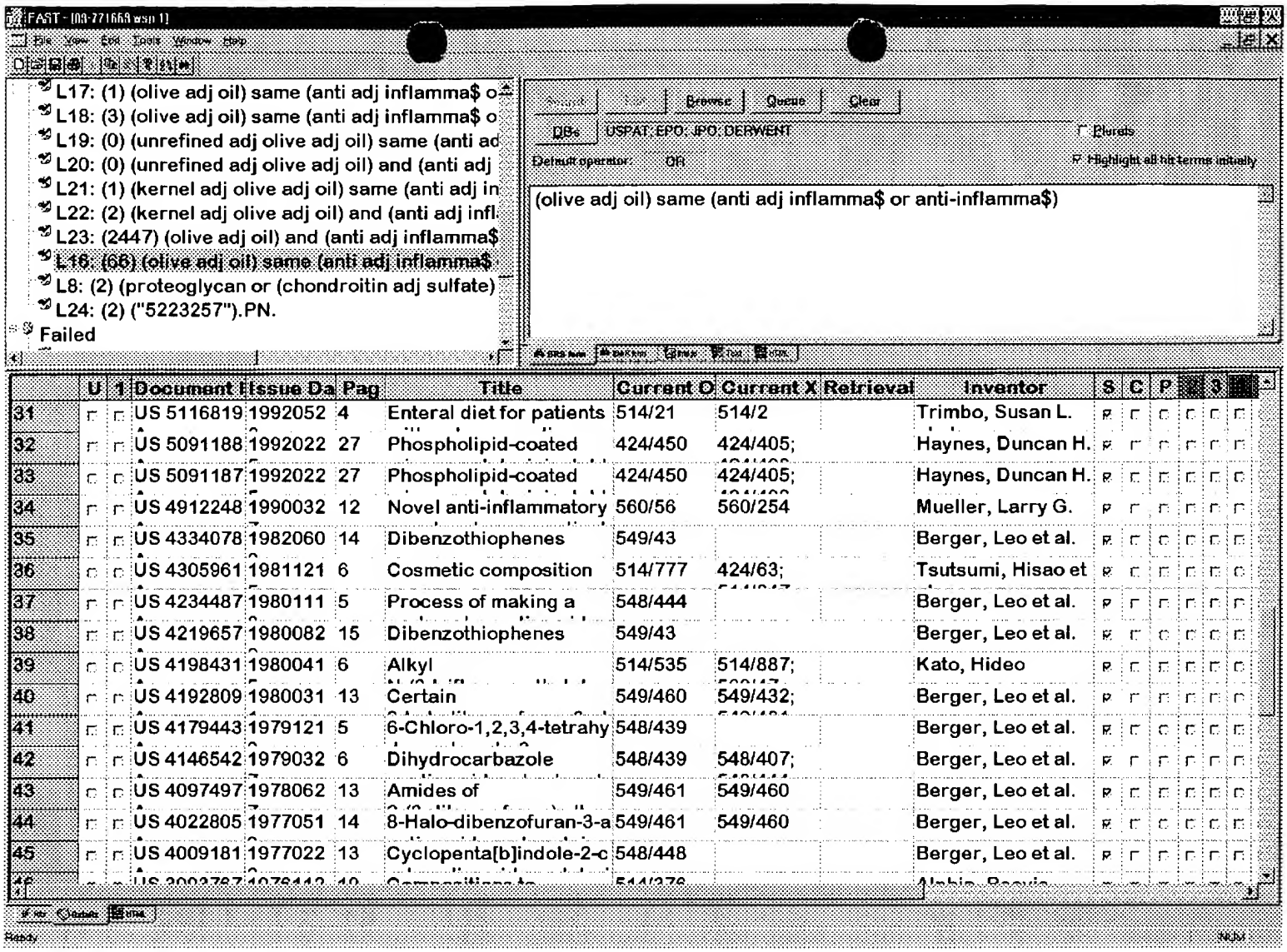
16	☐	☐	US 6139852	2000103	10	Extract composition as	424/401	424/70.1;		Takeoka, Eriko et	☑	☐	☐	☐	☐
17	☐	☐	US 6083536	2000070	9	Super-critical lipid	424/547	424/520;		Macrides,	☑	☐	☐	☐	☐
18	☐	☐	US 6080430	2000062	12	Powder coated with	424/490	424/459;		Ogawa, Katsuki et	☑	☐	☐	☐	☐
19	☐	☐	US 6034261	2000030	17	Process for the	558/110			Matsunaga, Akira	☑	☐	☐	☐	☐
20	☐	☐	US 5928660	1999072	7	Cosmetic raw material,	424/401	424/69;		Kobayashi, Kazuo	☑	☐	☐	☐	☐
21	☐	☐	US 5854199	1998122	9	Cleaning compositions	510/501	554/37		Oshimura, Eiko et	☑	☐	☐	☐	☐
22	☐	☐	US 5830486	1998110	6	Cosmetic	424/401	424/61;		Nanba, Tomiyuki et	☑	☐	☐	☐	☐
23	☐	☐	US 5772929	1998063	9	Manufacturing method	264/4.1	427/213.3		Enomura, Shinichi	☑	☐	☐	☐	☐
24	☐	☐	US 5470839	1995112	7	Enteral diet and method	514/53	426/810;		Laughlin, Philip et	☑	☐	☐	☐	☐
25	☐	☐	US 5431924	1995071	11	Anti-inflammatory	424/522	514/825		Ghosh, Peter et al.	☑	☐	☐	☐	☐
26	☐	☐	US 5409705	1995042	38	Phosphobetaine and	424/401	424/70.1;		Kita, Katsumi et al.	☑	☐	☐	☐	☐
27	☐	☐	US 5405609	1995041	3	Therapeutic shampoo	424/744	424/70.22;		Sanchez, Israel L.	☑	☐	☐	☐	☐
28	☐	☐	US 5354750	1994101	6	Phthalazines containing	514/248	544/237		Scheffler, Gerhard	☑	☐	☐	☐	☐
29	☐	☐	US 5223257	1993062	2	Topical composition for	424/742	514/159;		Arora, Vasu	☑	☐	☐	☐	☐
30	☐	☐	US 5166189	1992112	4	Enteral diet for patients	514/2	514/21		Trimbo, Susan L.	☑	☐	☐	☐	☐
31	☐	☐	US 5116840	1992052	4	Enteral diet for patients	514/21	514/2		Trimbo, Susan L.	☐	☐	☐	☐	☐



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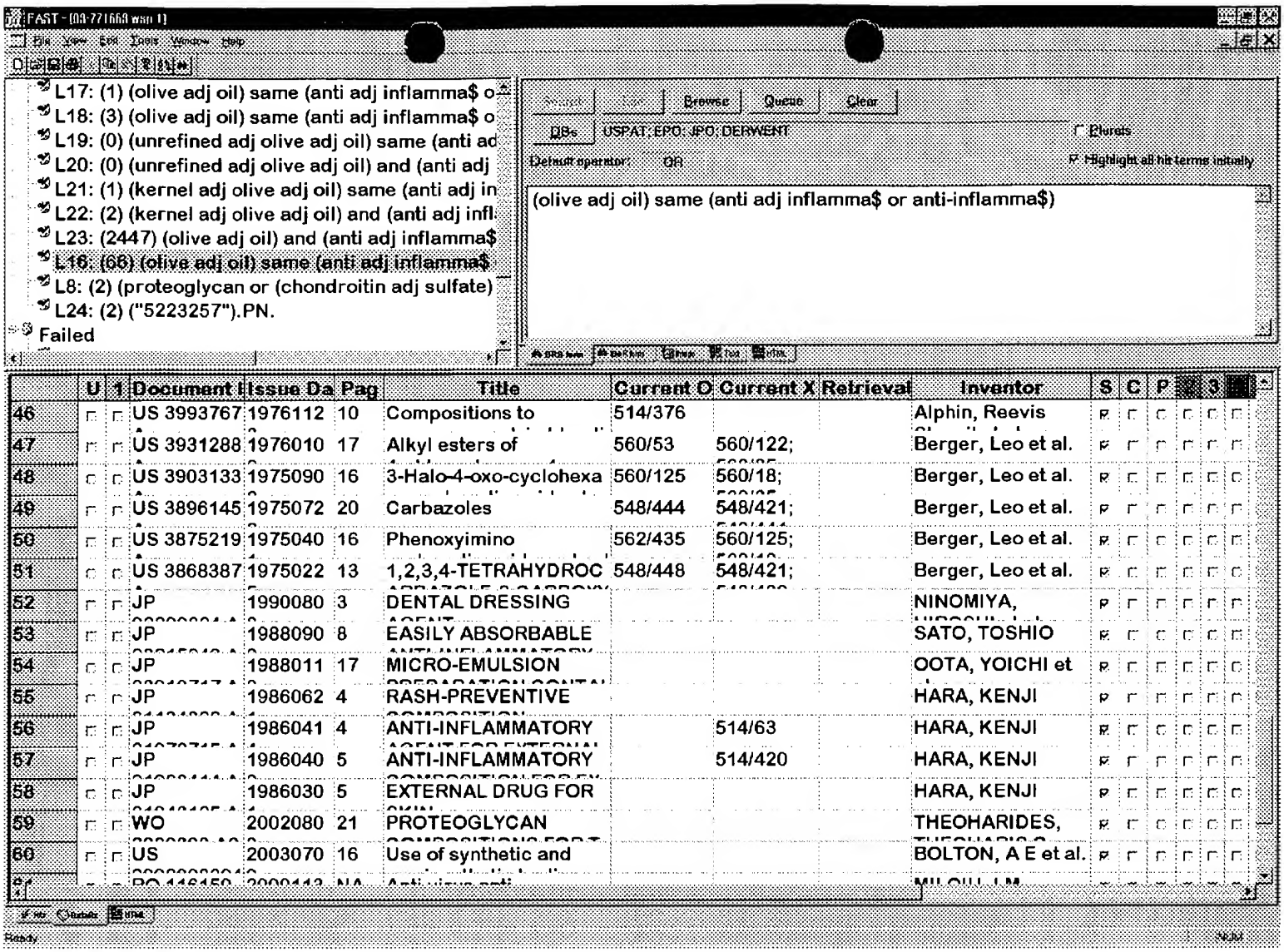
31	☐	☐	US 5116819	1992052	4	Enteral diet for patients	514/21	514/2		Trimbo, Susan L.	☑	☐	☐	☐
32	☐	☐	US 5091188	1992022	27	Phospholipid-coated	424/450	424/405;		Haynes, Duncan H.	☑	☐	☐	☐
33	☐	☐	US 5091187	1992022	27	Phospholipid-coated	424/450	424/405;		Haynes, Duncan H.	☑	☐	☐	☐
34	☐	☐	US 4912248	1990032	12	Novel anti-inflammatory	560/56	560/254		Mueller, Larry G.	☑	☐	☐	☐
35	☐	☐	US 4334078	1982060	14	Dibenzothiophenes	549/43			Berger, Leo et al.	☑	☐	☐	☐
36	☐	☐	US 4305961	1981121	6	Cosmetic composition	514/777	424/63;		Tsutsumi, Hisao et	☑	☐	☐	☐
37	☐	☐	US 4234487	1980111	5	Process of making a	548/444			Berger, Leo et al.	☑	☐	☐	☐
38	☐	☐	US 4219657	1980082	15	Dibenzothiophenes	549/43			Berger, Leo et al.	☑	☐	☐	☐
39	☐	☐	US 4198431	1980041	6	Alkyl	514/535	514/887;		Kato, Hideo	☑	☐	☐	☐
40	☐	☐	US 4192809	1980031	13	Certain	549/460	549/432;		Berger, Leo et al.	☑	☐	☐	☐
41	☐	☐	US 4179443	1979121	5	6-Chloro-1,2,3,4-tetrahy	548/439			Berger, Leo et al.	☑	☐	☐	☐
42	☐	☐	US 4146542	1979032	6	Dihydrocarbazole	548/439	548/407;		Berger, Leo et al.	☑	☐	☐	☐
43	☐	☐	US 4097497	1978062	13	Amides of	549/461	549/460		Berger, Leo et al.	☑	☐	☐	☐
44	☐	☐	US 4022805	1977051	14	8-Halo-dibenzofuran-3-a	549/461	549/460		Berger, Leo et al.	☑	☐	☐	☐
45	☐	☐	US 4009181	1977022	13	Cyclopenta[b]indole-2-c	548/448			Berger, Leo et al.	☑	☐	☐	☐
46	☐	☐	US 3993787	1976112	10	Compositions to	514/376			Alphin, Reevis	☐	☐	☐	☐



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46	☐	☐	US 3993767	1976112	10	Compositions to	514/376			Alphin, Reevis	☑	☐	☐	☐
47	☐	☐	US 3931288	1976010	17	Alkyl esters of	560/53	560/122;		Berger, Leo et al.	☑	☐	☐	☐
48	☐	☐	US 3903133	1975090	16	3-Halo-4-oxo-cyclohexa	560/125	560/18;		Berger, Leo et al.	☑	☐	☐	☐
49	☐	☐	US 3896145	1975072	20	Carbazoles	548/444	548/421;		Berger, Leo et al.	☑	☐	☐	☐
50	☐	☐	US 3875219	1975040	16	Phenoxyimino	562/435	560/125;		Berger, Leo et al.	☑	☐	☐	☐
51	☐	☐	US 3868387	1975022	13	1,2,3,4-TETRAHYDROC	548/448	548/421;		Berger, Leo et al.	☑	☐	☐	☐
52	☐	☐	JP	1990080	3	DENTAL DRESSING				NINOMIYA,	☑	☐	☐	☐
53	☐	☐	JP	1988090	8	EASILY ABSORBABLE				SATO, TOSHIO	☑	☐	☐	☐
54	☐	☐	JP	1988011	17	MICRO-EMULSION				OOTA, YOICHI et	☑	☐	☐	☐
55	☐	☐	JP	1986062	4	RASH-PREVENTIVE				HARA, KENJI	☑	☐	☐	☐
56	☐	☐	JP	1986041	4	ANTI-INFLAMMATORY		514/63		HARA, KENJI	☑	☐	☐	☐
57	☐	☐	JP	1986040	5	ANTI-INFLAMMATORY		514/420		HARA, KENJI	☑	☐	☐	☐
58	☐	☐	JP	1986030	5	EXTERNAL DRUG FOR				HARA, KENJI	☑	☐	☐	☐
59	☐	☐	WO	2002080	21	PROTEOGLYCAN				THEOHARIDES,	☑	☐	☐	☐
60	☐	☐	US	2003070	16	Use of synthetic and				BOLTON, A E et al.	☑	☐	☐	☐
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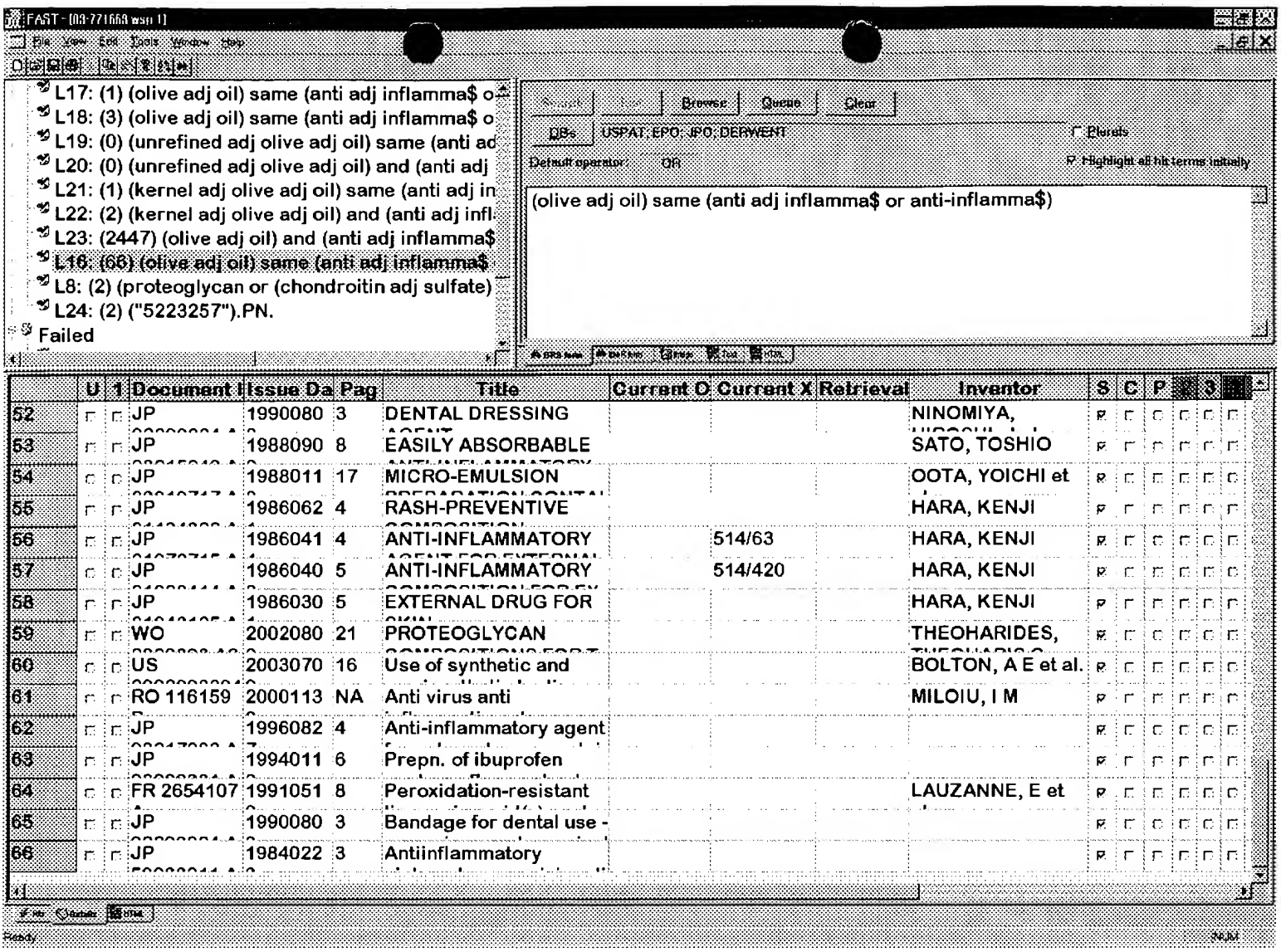
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52 JP 1990080 3 DENTAL DRESSING AGENT NINOMIYA,
53 JP 1988090 8 EASILY ABSORBABLE SATO, TOSHIO
54 JP 1988011 17 MICRO-EMULSION OOTA, YOICHI et
55 JP 1986062 4 RASH-PREVENTIVE HARA, KENJI
56 JP 1986041 4 ANTI-INFLAMMATORY 514/63 HARA, KENJI
57 JP 1986040 5 ANTI-INFLAMMATORY 514/420 HARA, KENJI
58 JP 1986030 5 EXTERNAL DRUG FOR HARA, KENJI
59 WO 2002080 21 PROTEOGLYCAN THEOHARIDES,
60 US 2003070 16 Use of synthetic and BOLTON, A E et al.
61 RO 116159 2000113 NA Anti virus anti MILOIU, I M
62 JP 1996082 4 Anti-inflammatory agent
63 JP 1994011 6 Prepn. of ibuprofen
64 FR 2654107 1991051 8 Peroxidation-resistant LAUZANNE, E et
65 JP 1990080 3 Bandage for dental use -
66 JP 1984022 3 Antiinflammatory
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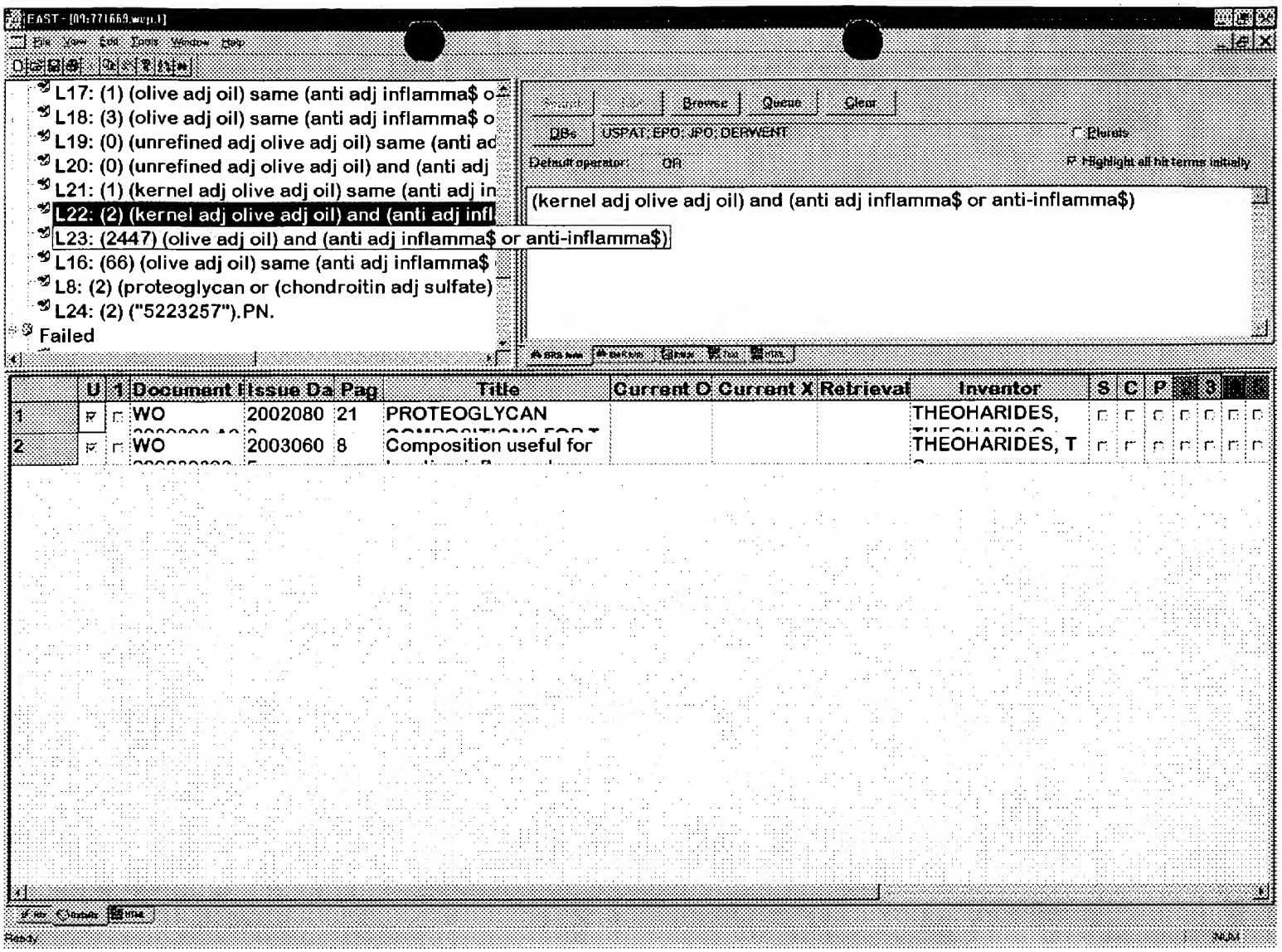
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1 WO 2002080 21 PROTEOGLYCAN THEOHARIDES,
2 WO 2003060 8 Composition useful for THEOHARIDES, T
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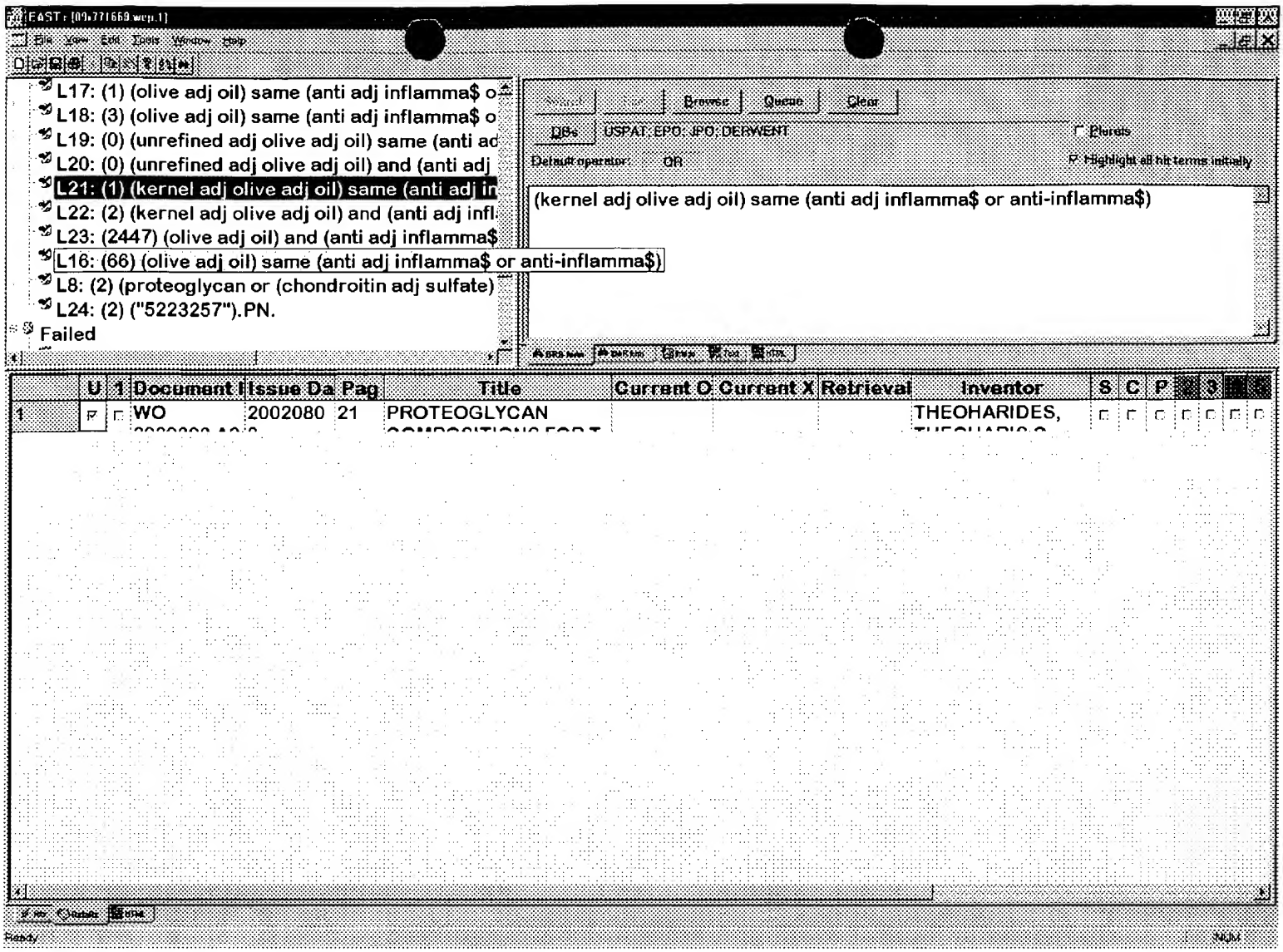
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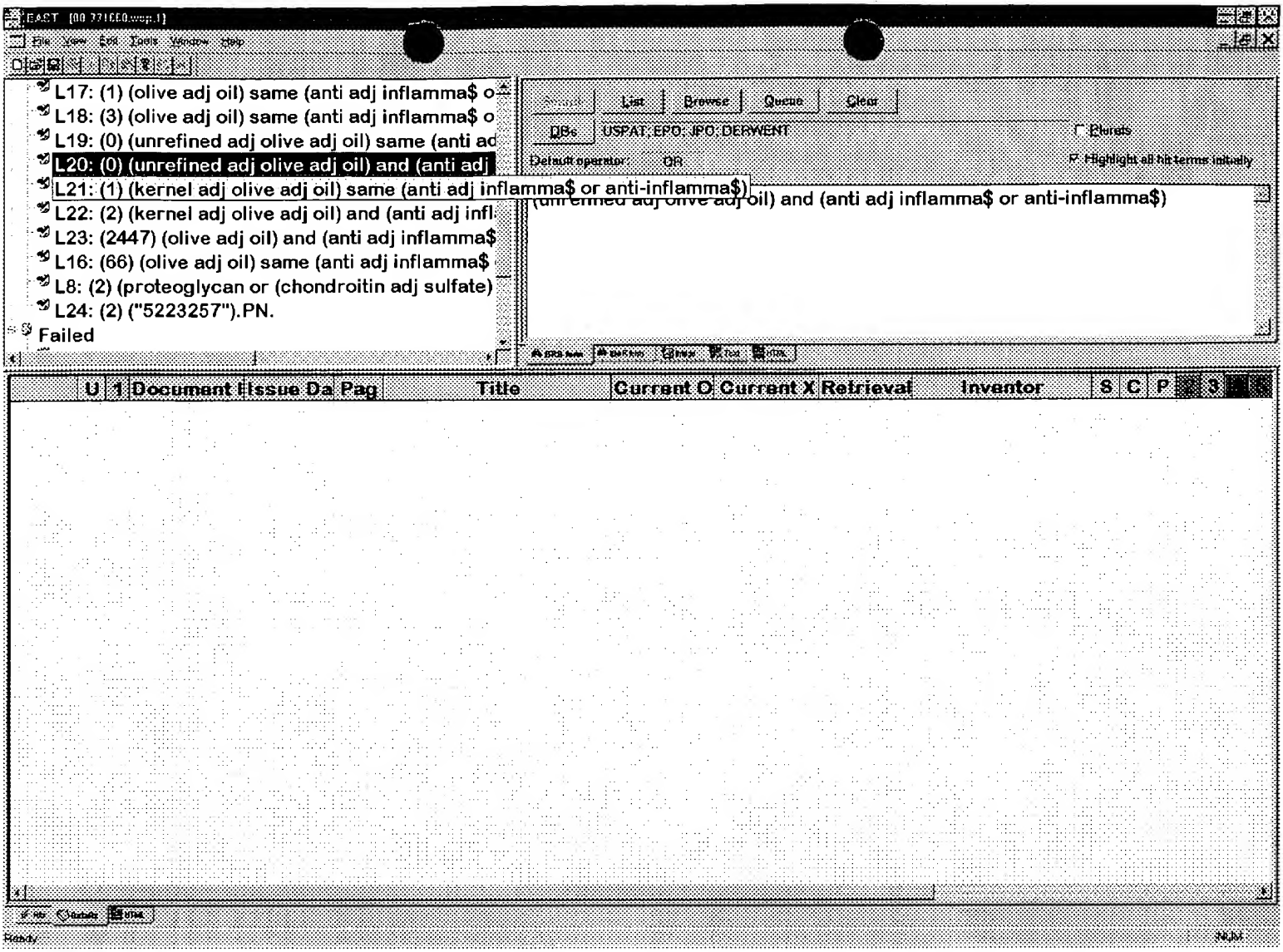
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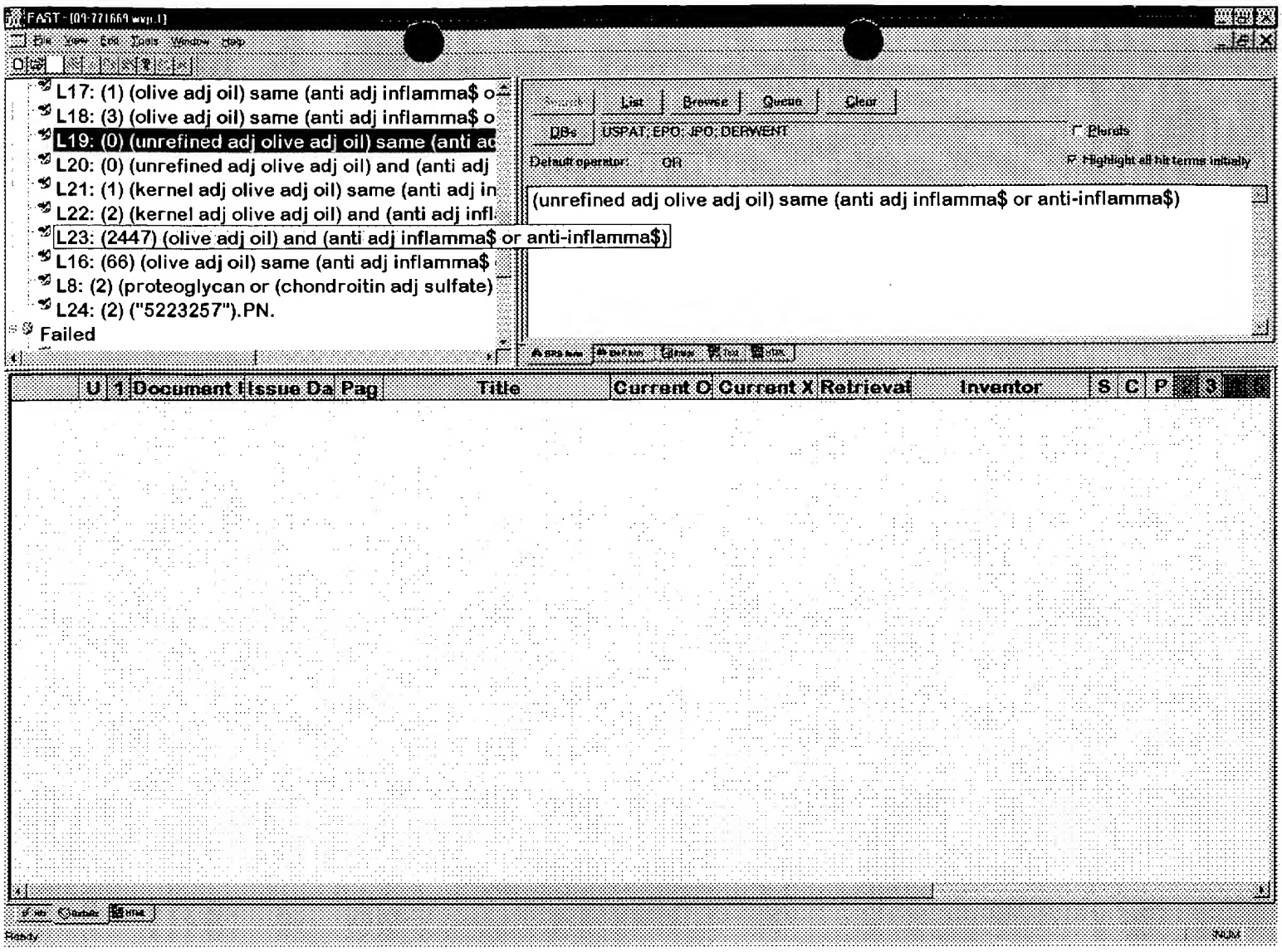
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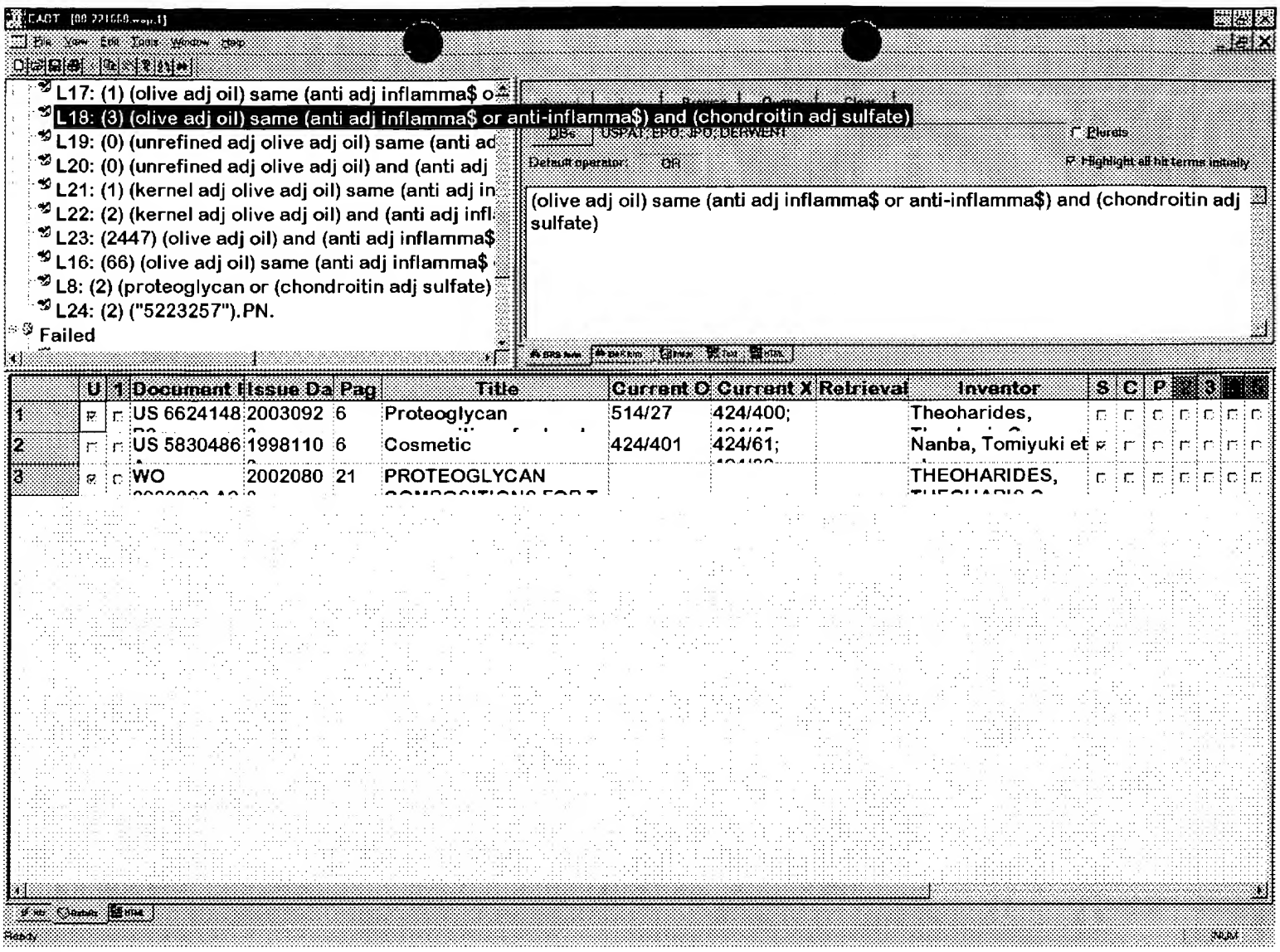
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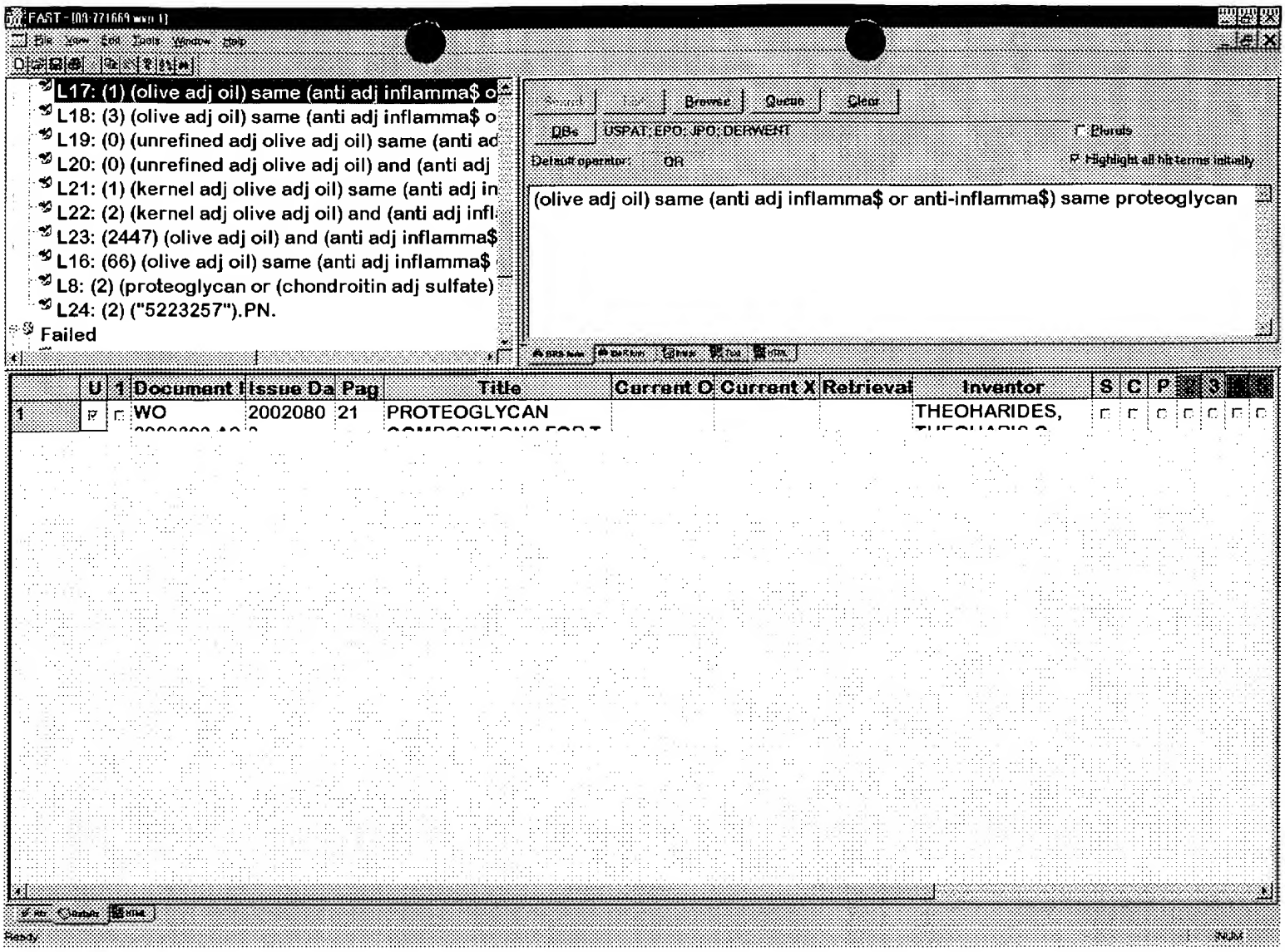
U 1 Document I Issue Da Pag Title Current O Current X Retrieval Inventor S C P
1 US 6624148 2003092 6 Proteoglycan 514/27 424/400; Theoharides,
2 US 5830486 1998110 6 Cosmetic 424/401 424/61; Nanba, Tomiyuki et
3 WO 2002080 21 PROTEOGLYCAN THEOHARIDES,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L22: (2) (kernel adj olive adj oil) and (anti adj infl
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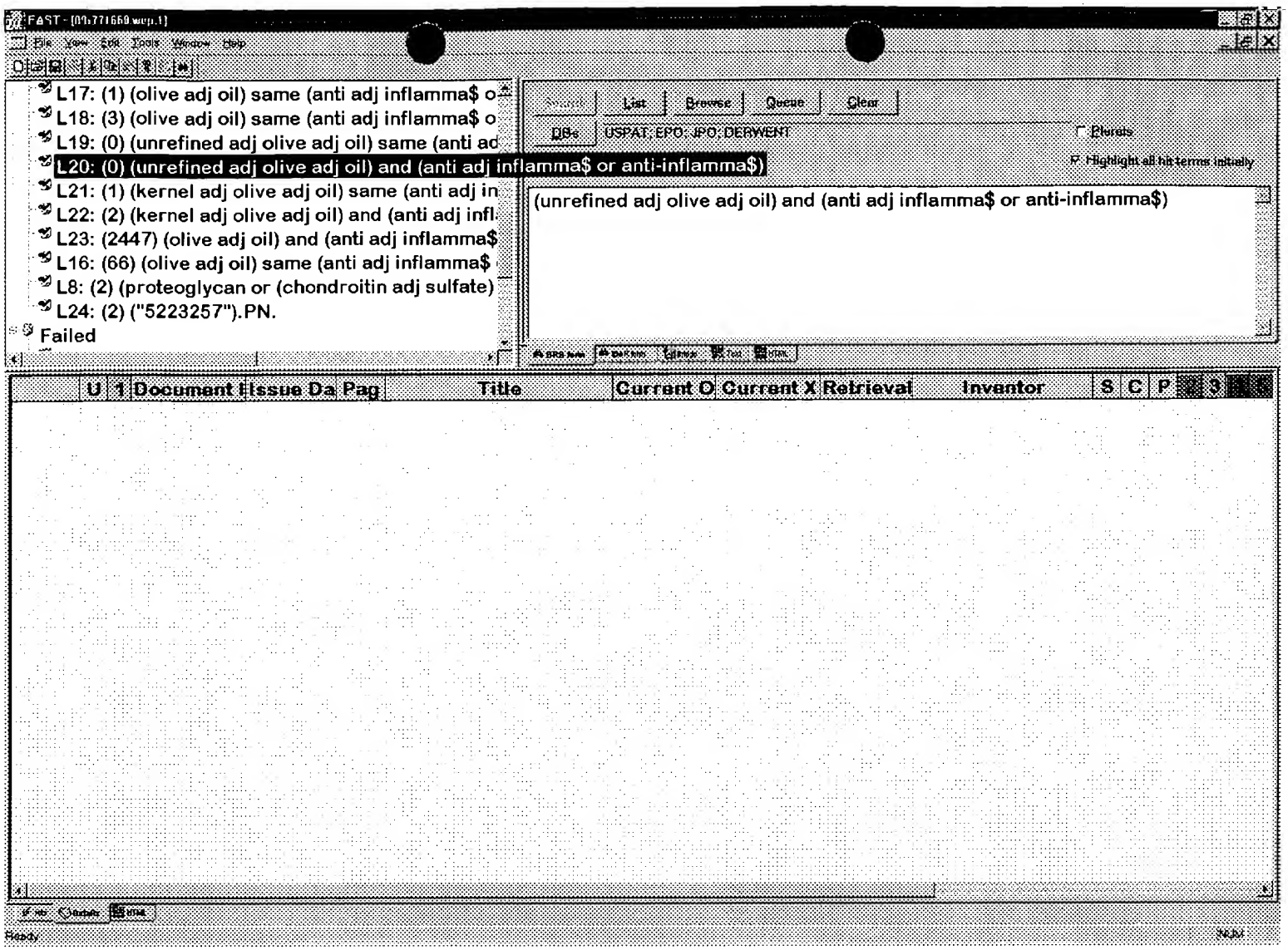
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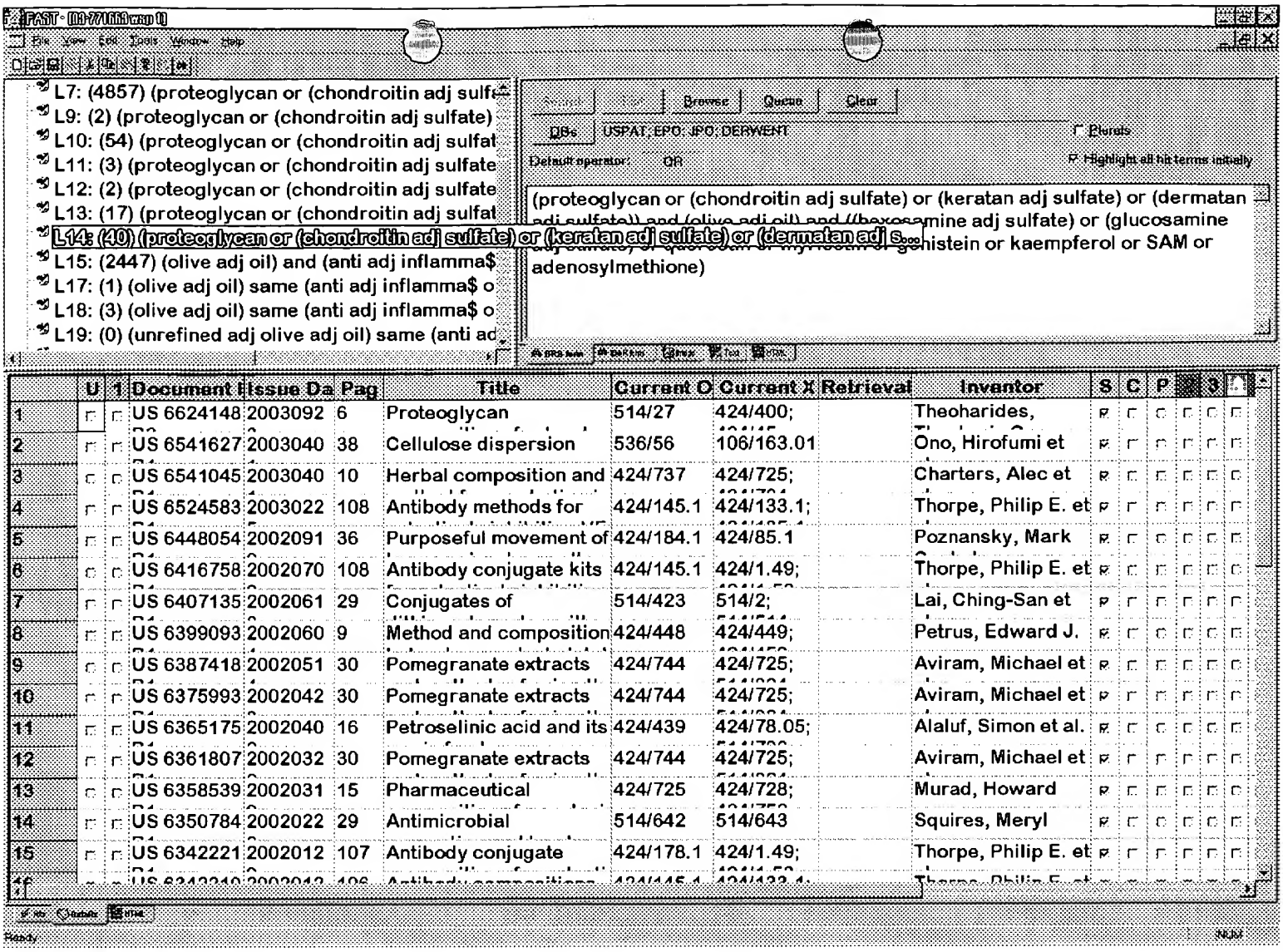

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2	☐	☐	US 6541627	2003040	38	Cellulose dispersion	536/56	106/163.01		Ono, Hirofumi et	☑	☐	☐	☐
3	☐	☐	US 6541045	2003040	10	Herbal composition and	424/737	424/725;		Charters, Alec et	☑	☐	☐	☐
4	☐	☐	US 6524583	2003022	108	Antibody methods for	424/145.1	424/133.1;		Thorpe, Philip E. et	☑	☐	☐	☐
5	☐	☐	US 6448054	2002091	36	Purposeful movement of	424/184.1	424/85.1		Poznansky, Mark	☑	☐	☐	☐
6	☐	☐	US 6416758	2002070	108	Antibody conjugate kits	424/145.1	424/1.49;		Thorpe, Philip E. et	☑	☐	☐	☐
7	☐	☐	US 6407135	2002061	29	Conjugates of	514/423	514/2;		Lai, Ching-San et	☑	☐	☐	☐
8	☐	☐	US 6399093	2002060	9	Method and composition	424/448	424/449;		Petrus, Edward J.	☑	☐	☐	☐
9	☐	☐	US 6387418	2002051	30	Pomegranate extracts	424/744	424/725;		Aviram, Michael et	☑	☐	☐	☐
10	☐	☐	US 6375993	2002042	30	Pomegranate extracts	424/744	424/725;		Aviram, Michael et	☑	☐	☐	☐
11	☐	☐	US 6365175	2002040	16	Petroselinic acid and its	424/439	424/78.05;		Alaluf, Simon et al.	☑	☐	☐	☐
12	☐	☐	US 6361807	2002032	30	Pomegranate extracts	424/744	424/725;		Aviram, Michael et	☑	☐	☐	☐
13	☐	☐	US 6358539	2002031	15	Pharmaceutical	424/725	424/728;		Murad, Howard	☑	☐	☐	☐
14	☐	☐	US 6350784	2002022	29	Antimicrobial	514/642	514/643		Squires, Meryl	☑	☐	☐	☐
15	☐	☐	US 6342221	2002012	107	Antibody conjugate	424/178.1	424/1.49;		Thorpe, Philip E. et	☑	☐	☐	☐
16	☐	☐	US 6342210	2002012	106	Antibody compositions	424/145.1	424/133.1;		Thorpe, Philip E. et	☑	☐	☐	☐

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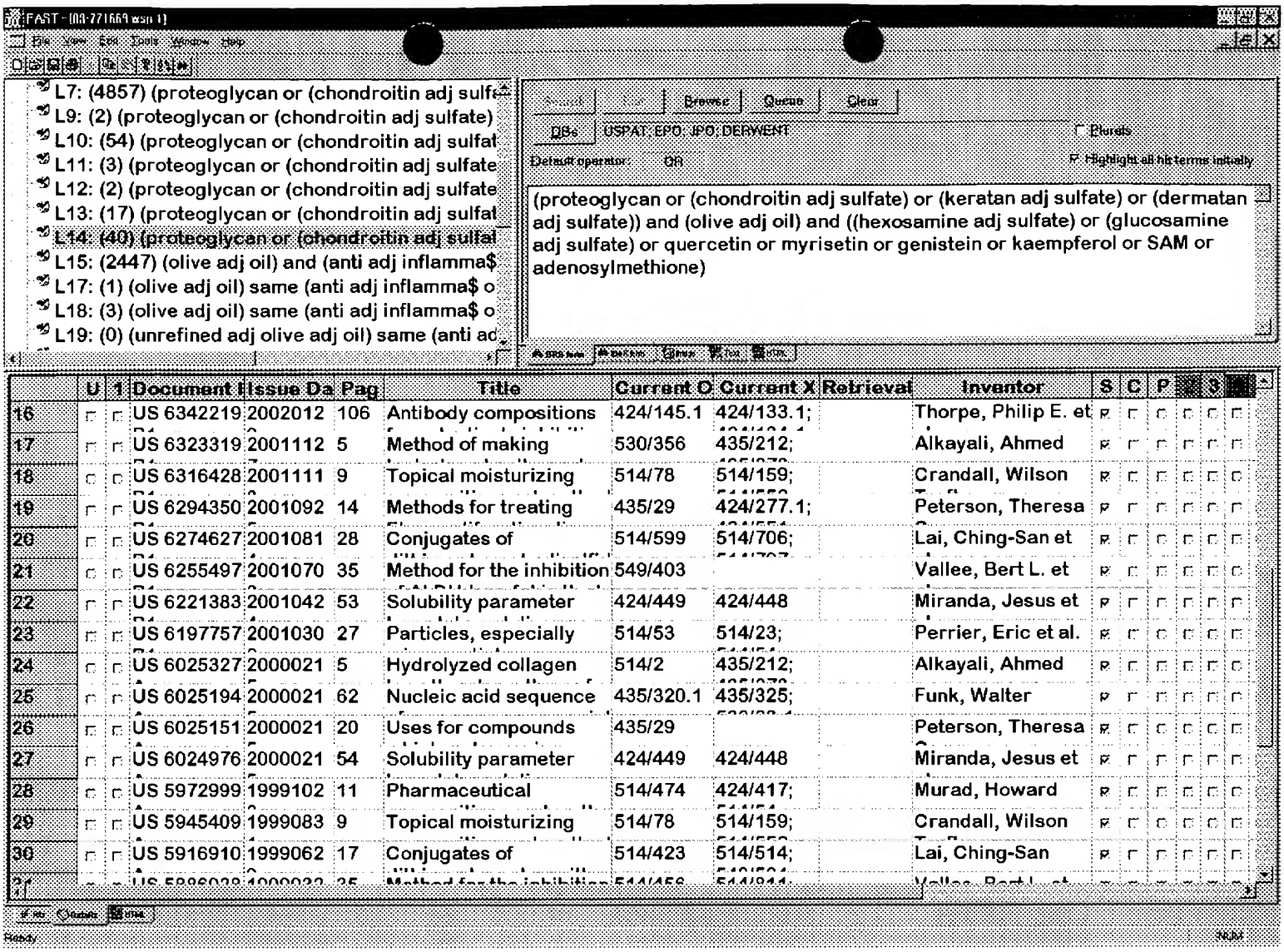

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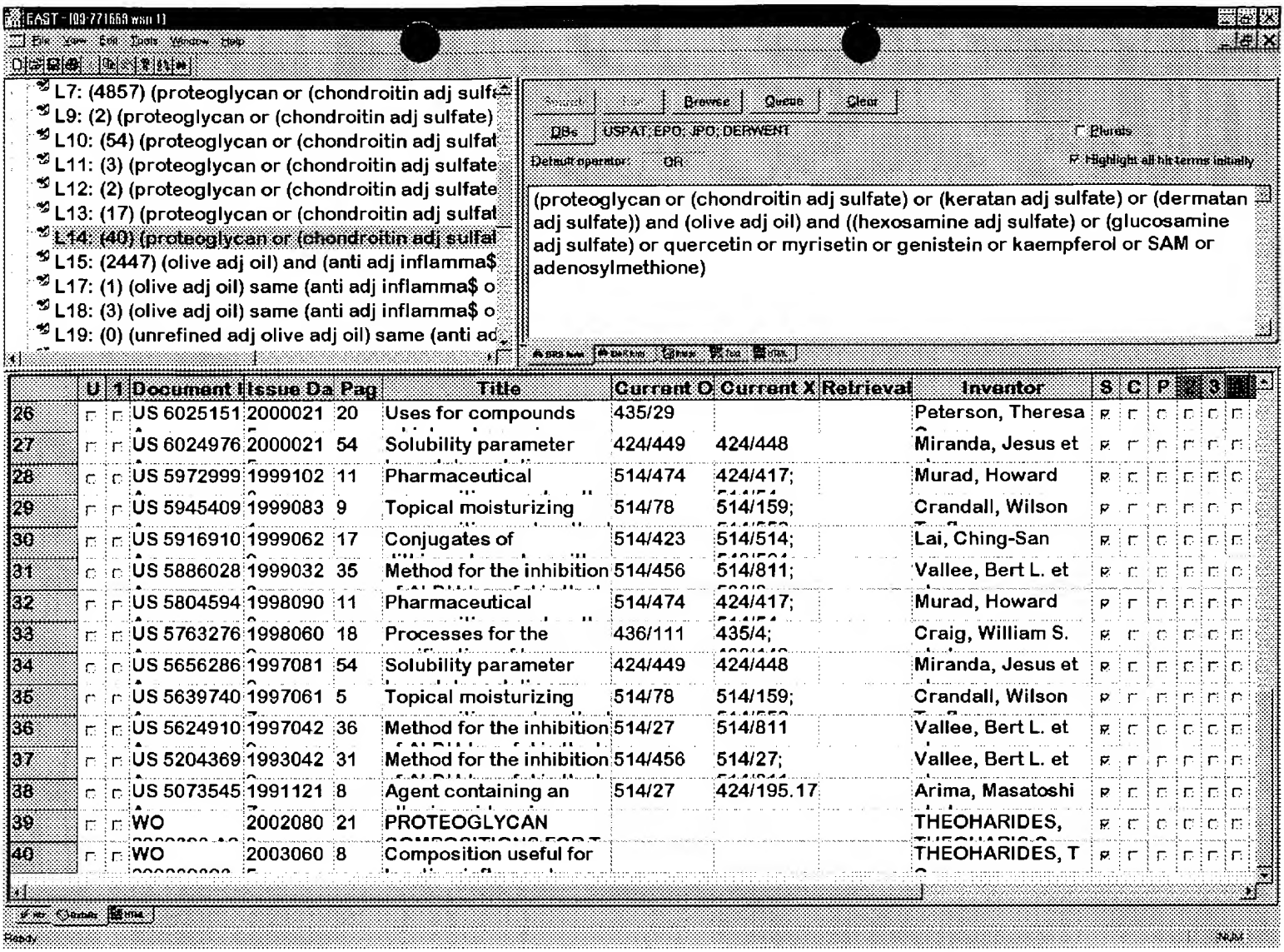
16	☐	☐	US 6342219	2002012	106	Antibody compositions	424/145.1	424/133.1;		Thorpe, Philip E. et	☑	☐	☐	☐	☐
17	☐	☐	US 6323319	2001112	5	Method of making	530/356	435/212;		Alkayali, Ahmed	☑	☐	☐	☐	☐
18	☐	☐	US 6316428	2001111	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐	☐
19	☐	☐	US 6294350	2001092	14	Methods for treating	435/29	424/277.1;		Peterson, Theresa	☑	☐	☐	☐	☐
20	☐	☐	US 6274627	2001081	28	Conjugates of	514/599	514/706;		Lai, Ching-San et	☑	☐	☐	☐	☐
21	☐	☐	US 6255497	2001070	35	Method for the inhibition	549/403			Vallee, Bert L. et	☑	☐	☐	☐	☐
22	☐	☐	US 6221383	2001042	53	Solubility parameter	424/449	424/448		Miranda, Jesus et	☑	☐	☐	☐	☐
23	☐	☐	US 6197757	2001030	27	Particles, especially	514/53	514/23;		Perrier, Eric et al.	☑	☐	☐	☐	☐
24	☐	☐	US 6025327	2000021	5	Hydrolyzed collagen	514/2	435/212;		Alkayali, Ahmed	☑	☐	☐	☐	☐
25	☐	☐	US 6025194	2000021	62	Nucleic acid sequence	435/320.1	435/325;		Funk, Walter	☑	☐	☐	☐	☐
26	☐	☐	US 6025151	2000021	20	Uses for compounds	435/29			Peterson, Theresa	☑	☐	☐	☐	☐
27	☐	☐	US 6024976	2000021	54	Solubility parameter	424/449	424/448		Miranda, Jesus et	☑	☐	☐	☐	☐
28	☐	☐	US 5972999	1999102	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐	☐
29	☐	☐	US 5945409	1999083	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐	☐
30	☐	☐	US 5916910	1999062	17	Conjugates of	514/423	514/514;		Lai, Ching-San	☑	☐	☐	☐	☐
31	☐	☐	US 5886028	1999032	25	Method for the inhibition	514/456	514/911;		Vallee, Bert L. et	☑	☐	☐	☐	☐



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27	☐	☐	US 6024976	2000021	54	Solubility parameter	424/449	424/448		Miranda, Jesus et	☑	☐	☐	☐	☐
28	☐	☐	US 5972999	1999102	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐	☐
29	☐	☐	US 5945409	1999083	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐	☐
30	☐	☐	US 5916910	1999062	17	Conjugates of	514/423	514/514;		Lai, Ching-San	☑	☐	☐	☐	☐
31	☐	☐	US 5886028	1999032	35	Method for the inhibition	514/456	514/811;		Vallee, Bert L. et	☑	☐	☐	☐	☐
32	☐	☐	US 5804594	1998090	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐	☐
33	☐	☐	US 5763276	1998060	18	Processes for the	436/111	435/4;		Craig, William S.	☑	☐	☐	☐	☐
34	☐	☐	US 5656286	1997081	54	Solubility parameter	424/449	424/448		Miranda, Jesus et	☑	☐	☐	☐	☐
35	☐	☐	US 5639740	1997061	5	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐	☐
36	☐	☐	US 5624910	1997042	36	Method for the inhibition	514/27	514/811		Vallee, Bert L. et	☑	☐	☐	☐	☐
37	☐	☐	US 5204369	1993042	31	Method for the inhibition	514/456	514/27;		Vallee, Bert L. et	☑	☐	☐	☐	☐
38	☐	☐	US 5073545	1991121	8	Agent containing an	514/27	424/195.17		Arima, Masatoshi	☑	☐	☐	☐	☐
39	☐	☐	WO	2002080	21	PROTEOGLYCAN				THEOHARIDES,	☑	☐	☐	☐	☐
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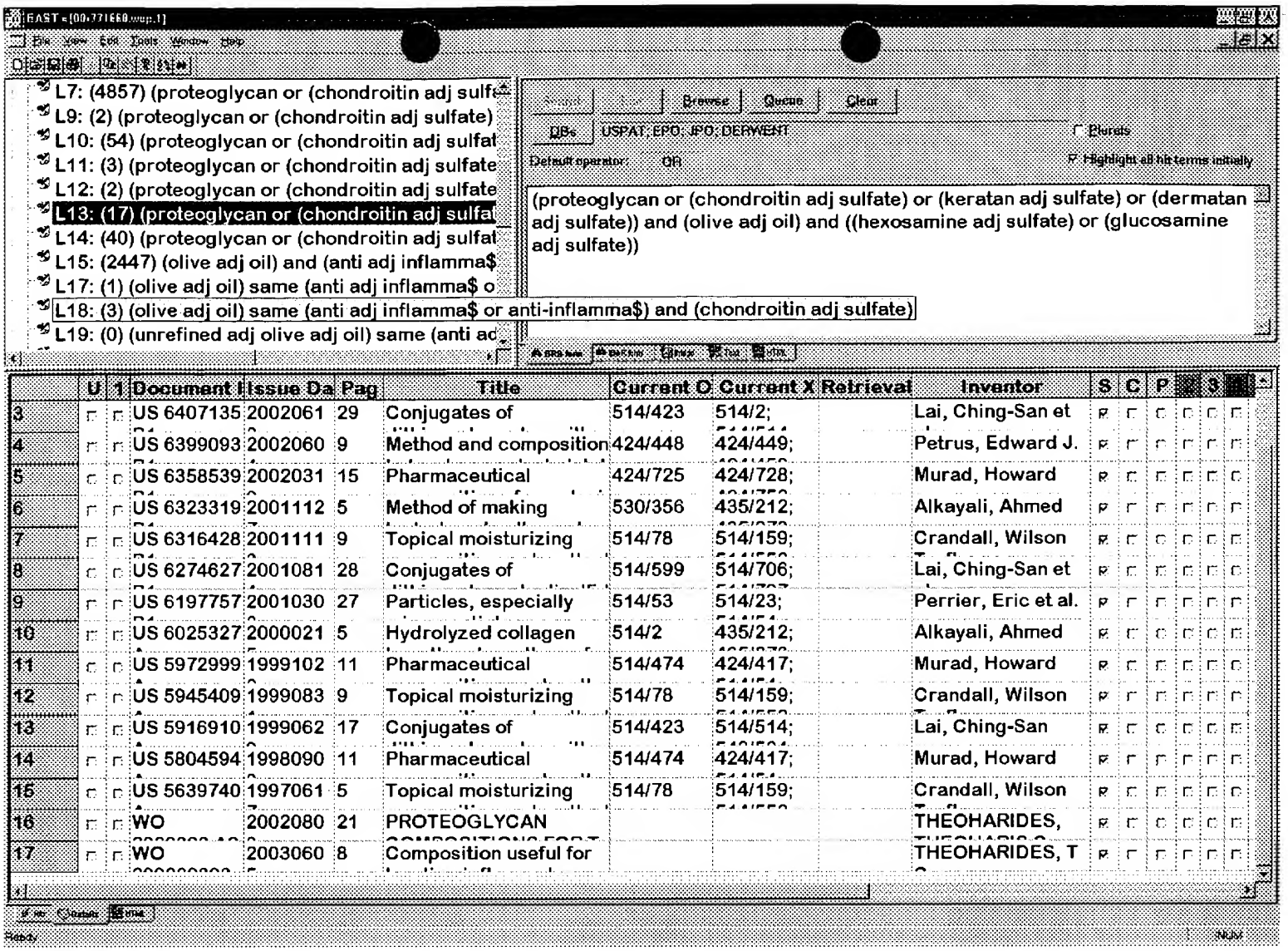

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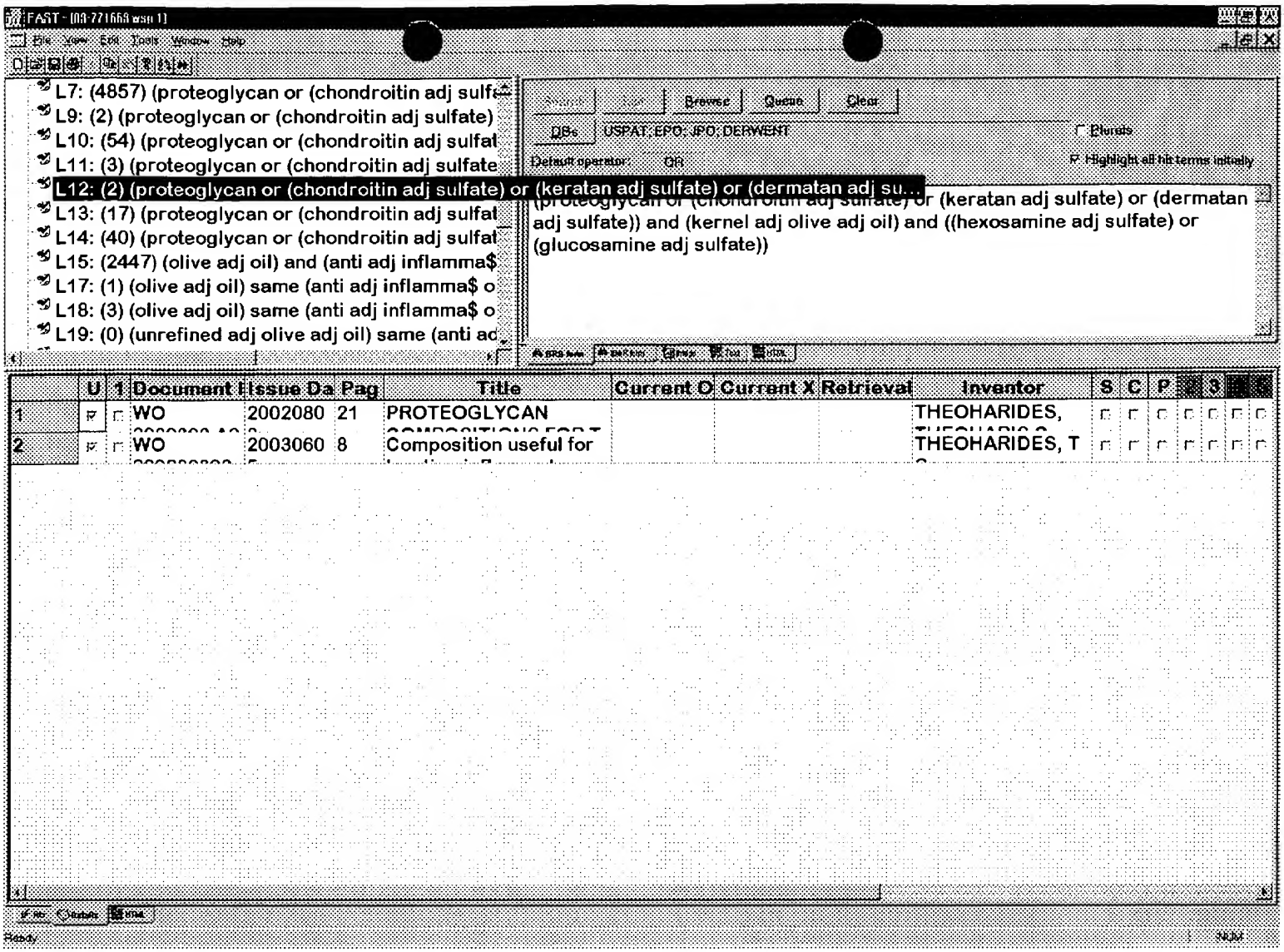
4	☐	☐	US 6399093	2002060	9	Method and composition	424/448	424/449;		Petrus, Edward J.	☑	☐	☐	☐
5	☐	☐	US 6358539	2002031	15	Pharmaceutical	424/725	424/728;		Murad, Howard	☑	☐	☐	☐
6	☐	☐	US 6323319	2001112	5	Method of making	530/356	435/212;		Alkayali, Ahmed	☑	☐	☐	☐
7	☐	☐	US 6316428	2001111	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐
8	☐	☐	US 6274627	2001081	28	Conjugates of	514/599	514/706;		Lai, Ching-San et	☑	☐	☐	☐
9	☐	☐	US 6197757	2001030	27	Particles, especially	514/53	514/23;		Perrier, Eric et al.	☑	☐	☐	☐
10	☐	☐	US 6025327	2000021	5	Hydrolyzed collagen	514/2	435/212;		Alkayali, Ahmed	☑	☐	☐	☐
11	☐	☐	US 5972999	1999102	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐
12	☐	☐	US 5945409	1999083	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐
13	☐	☐	US 5916910	1999062	17	Conjugates of	514/423	514/514;		Lai, Ching-San	☑	☐	☐	☐
14	☐	☐	US 5804594	1998090	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐
15	☐	☐	US 5639740	1997061	5	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☑	☐	☐	☐
16	☐	☐	WO	2002080	21	PROTEOGLYCAN				THEOHARIDES,	☑	☐	☐	☐
17	☐	☐	WO	2003060	8	Composition useful for				THEOHARIDES, T	☑	☐	☐	☐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L15: (2447) (olive adj oil) and (anti adj inflamma$
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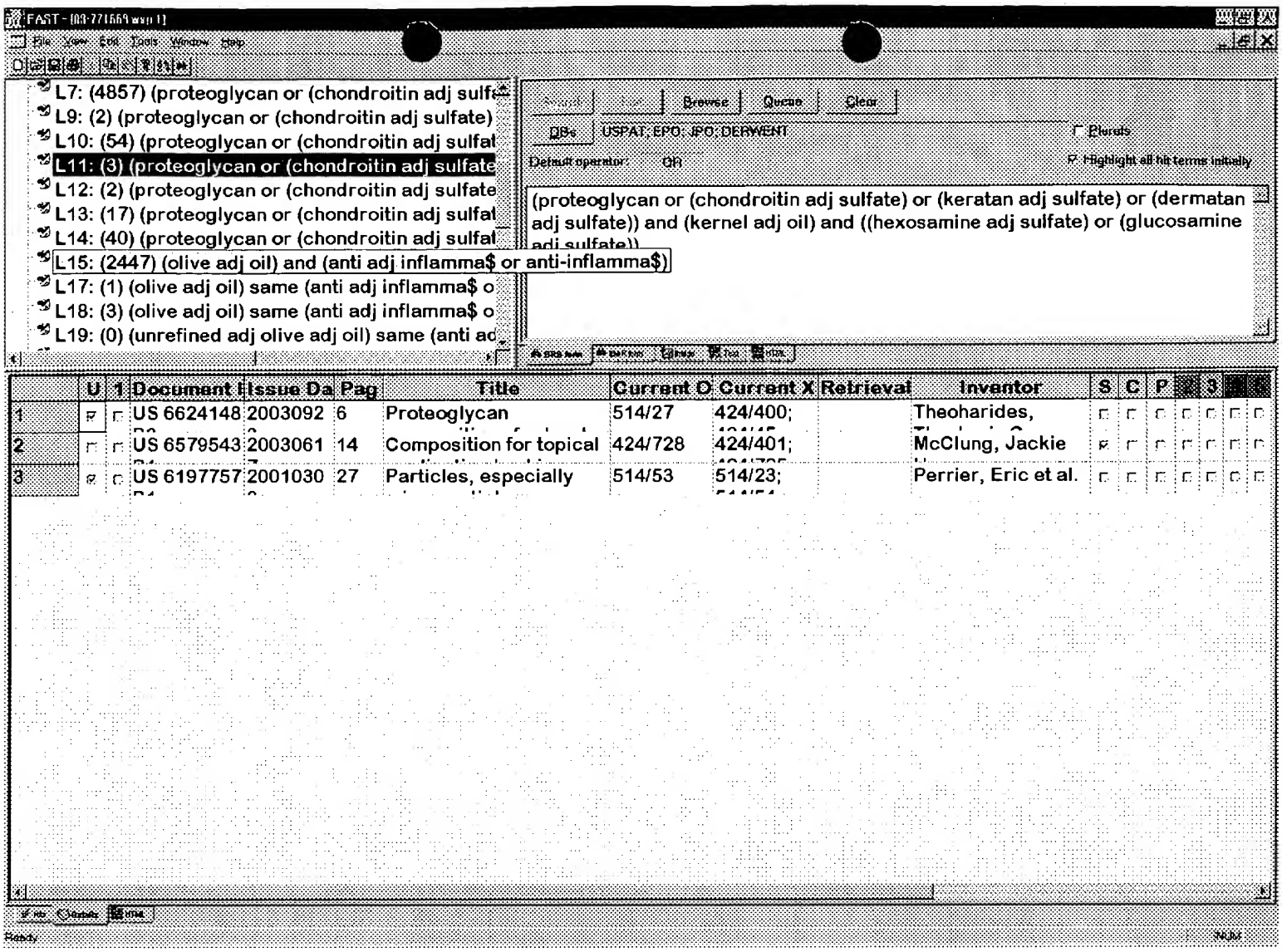

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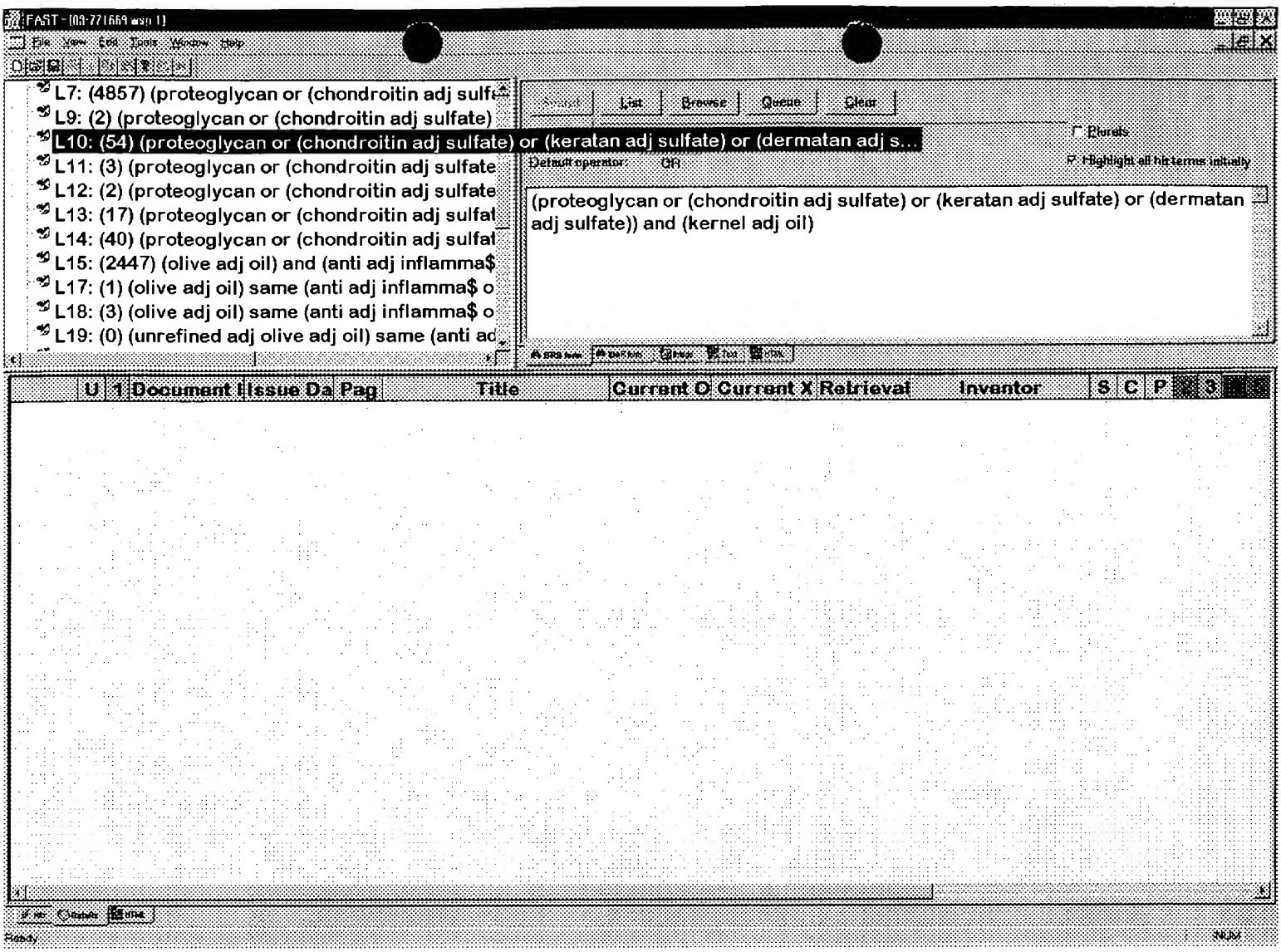
2	☐	☐	US 6579543	2003061	14	Composition for topical	424/728	424/401;		McClung, Jackie	☑	☐	☐	☐	☐
3	☑	☐	US 6197757	2001030	27	Particles, especially	514/53	514/23;		Perrier, Eric et al.	☐	☐	☐	☐	☐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L13: (17) (proteoglycan or (chondroitin adj sulfat
L14: (40) (proteoglycan or (chondroitin adj sulfat
L15: (2447) (olive adj oil) and (anti adj inflamma$
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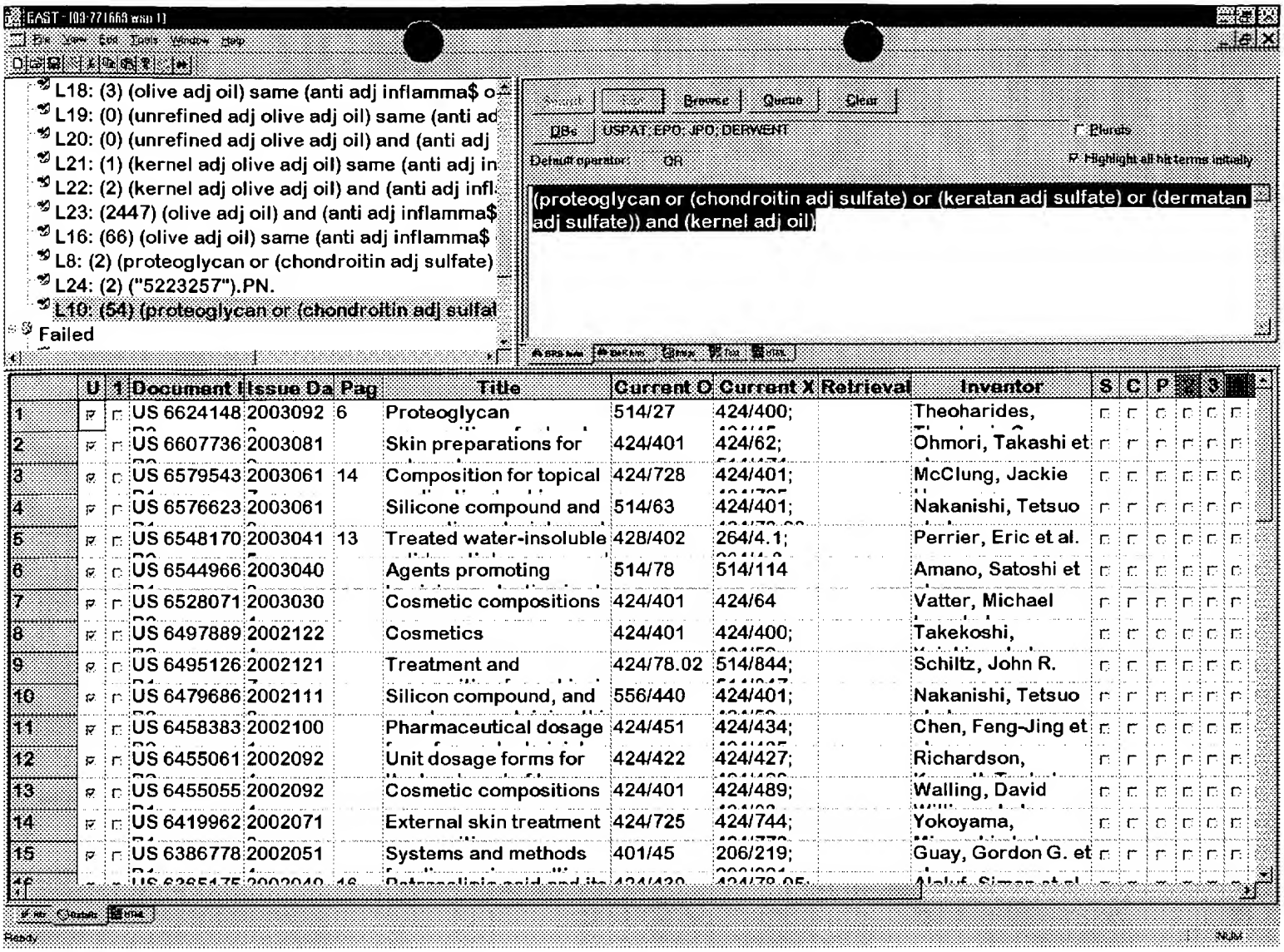
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2 US 6607736 2003081 Skin preparations for 424/401 424/62; Ohmori, Takashi et
3 US 6579543 2003061 14 Composition for topical 424/728 424/401; McClung, Jackie
4 US 6576623 2003061 Silicone compound and 514/63 424/401; Nakanishi, Tetsuo
5 US 6548170 2003041 13 Treated water-insoluble 428/402 264/4.1; Perrier, Eric et al.
6 US 6544966 2003040 Agents promoting 514/78 514/114 Amano, Satoshi et
7 US 6528071 2003030 Cosmetic compositions 424/401 424/64 Vatter, Michael
8 US 6497889 2002122 Cosmetics 424/401 424/400; Takekoshi,
9 US 6495126 2002121 Treatment and 424/78.02 514/844; Schiltz, John R.
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11 US 6458383 2002100 Pharmaceutical dosage 424/451 424/434; Chen, Feng-Jing et
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13 US 6455055 2002092 Cosmetic compositions 424/401 424/489; Walling, David
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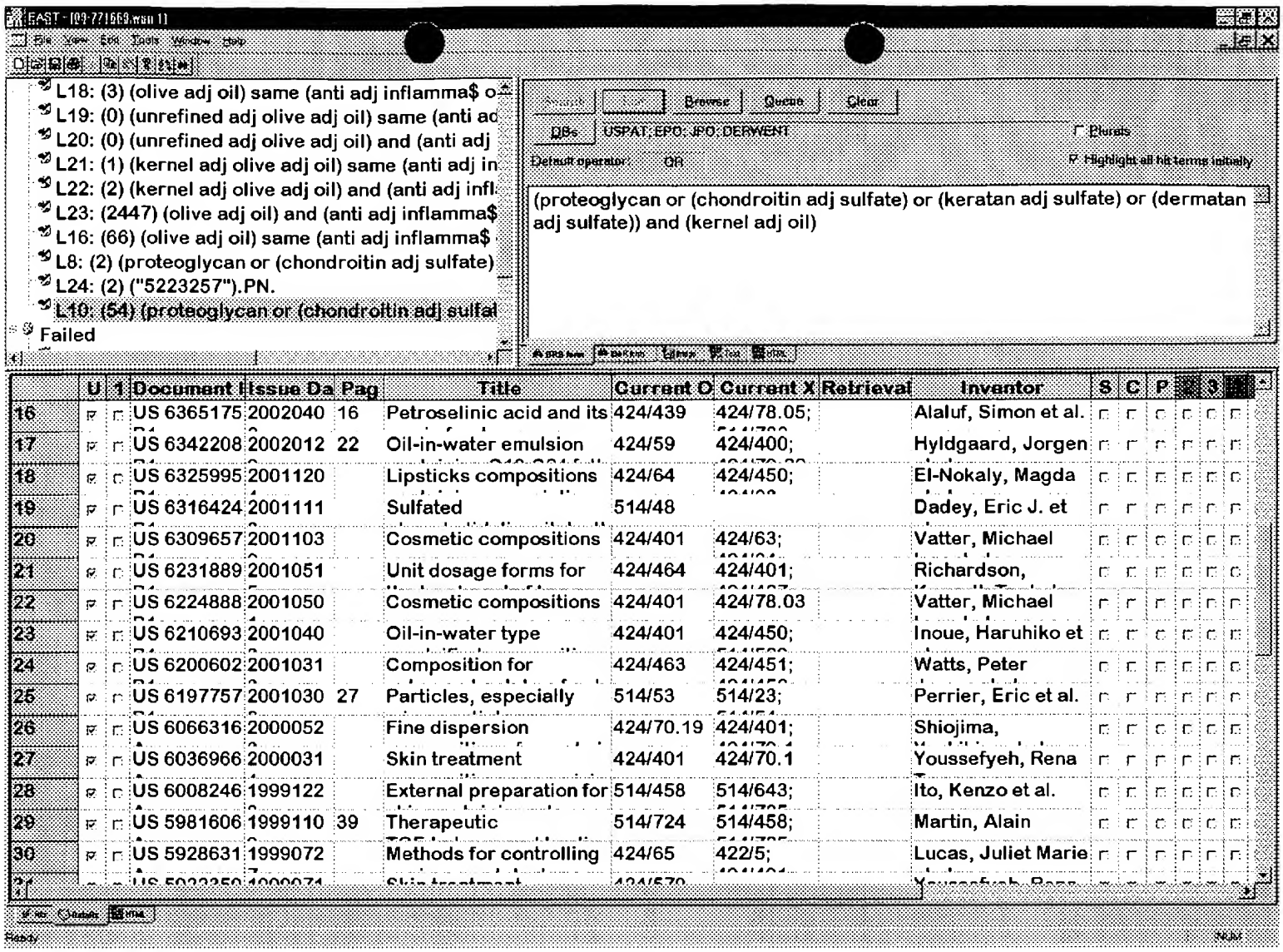
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16 US 6365175 2002040 16 Petroselinic acid and its 424/439 424/78.05; Alaluf, Simon et al.
17 US 6342208 2002012 22 Oil-in-water emulsion 424/59 424/400; Hyldgaard, Jorgen
18 US 6325995 2001120 Lipsticks compositions 424/64 424/450; El-Nokaly, Magda
19 US 6316424 2001111 Sulfated 514/48 Dadey, Eric J. et
20 US 6309657 2001103 Cosmetic compositions 424/401 424/63; Vatter, Michael
21 US 6231889 2001051 Unit dosage forms for 424/464 424/401; Richardson,
22 US 6224888 2001050 Cosmetic compositions 424/401 424/78.03 Vatter, Michael
23 US 6210693 2001040 Oil-in-water type 424/401 424/450; Inoue, Haruhiko et
24 US 6200602 2001031 Composition for 424/463 424/451; Watts, Peter
25 US 6197757 2001030 27 Particles, especially 514/53 514/23; Perrier, Eric et al.
26 US 6066316 2000052 Fine dispersion 424/70.19 424/401; Shiojima,
27 US 6036966 2000031 Skin treatment 424/401 424/70.1 Youssefyeh, Rena
28 US 6008246 1999122 External preparation for 514/458 514/643; Ito, Kenzo et al.
29 US 5981606 1999110 39 Therapeutic 514/724 514/458; Martin, Alain
30 US 5928631 1999072 Methods for controlling 424/65 422/5; Lucas, Juliet Marie
31 US 5922350 1999071 Skin treatment 424/570
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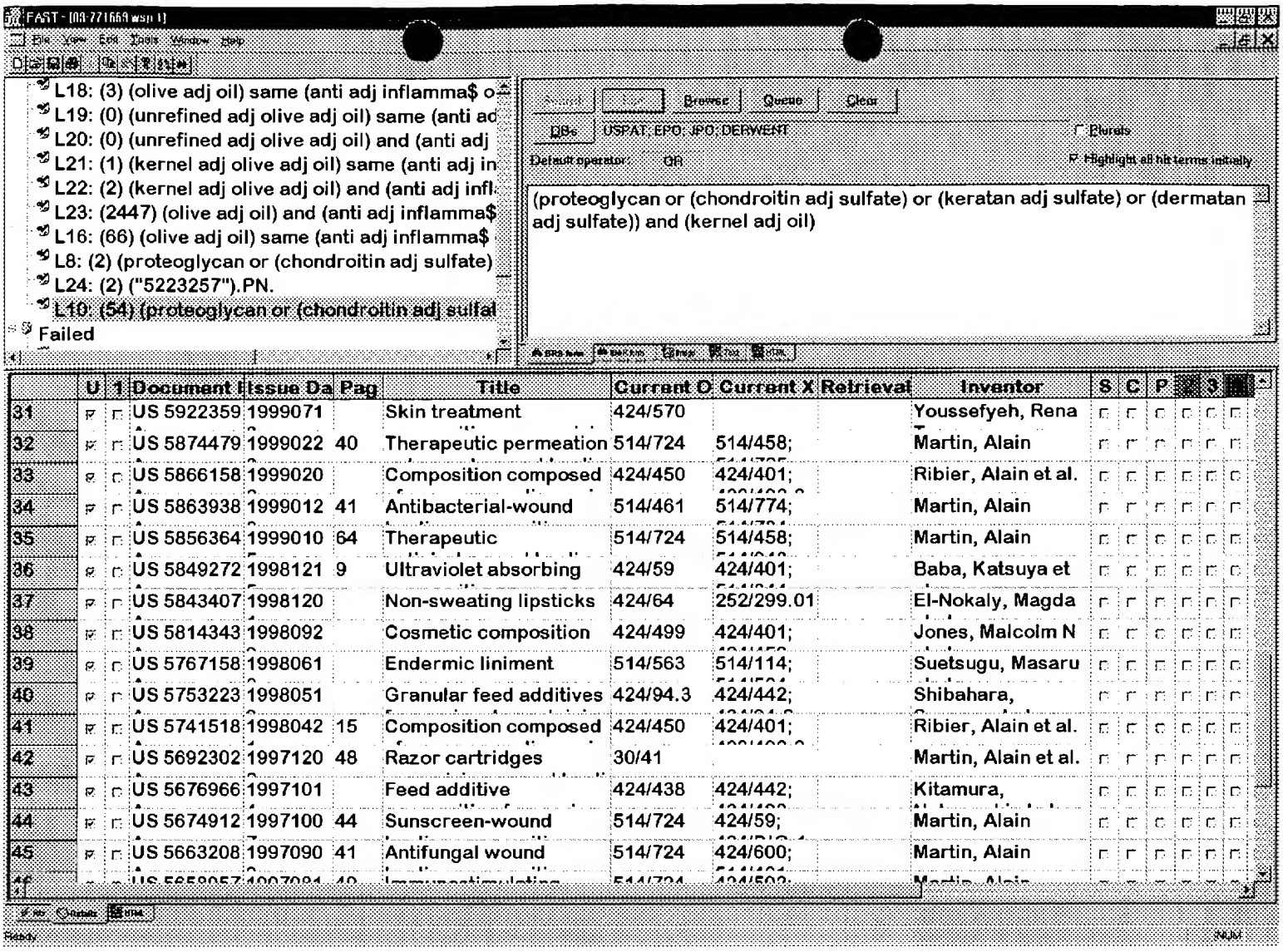
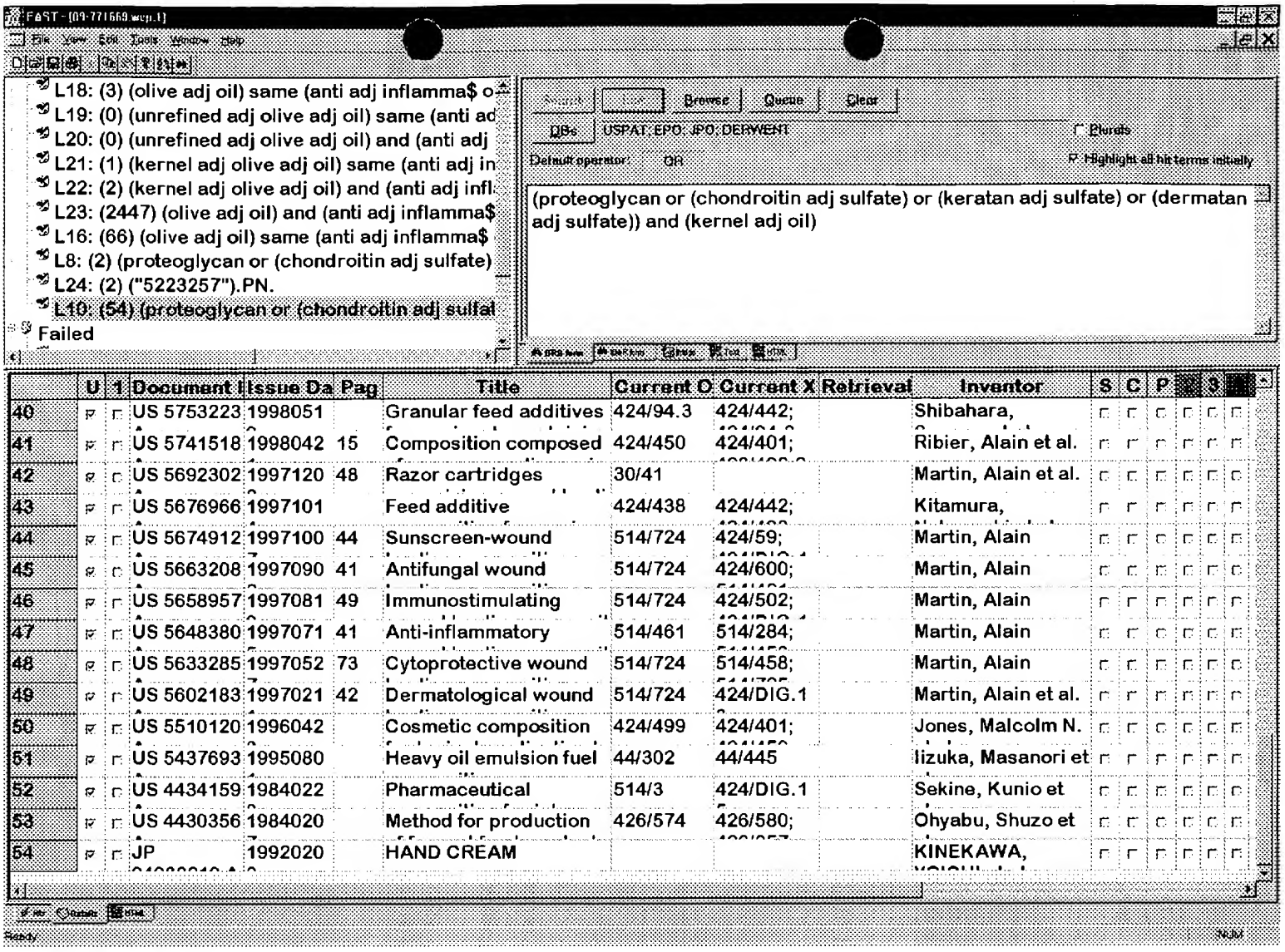
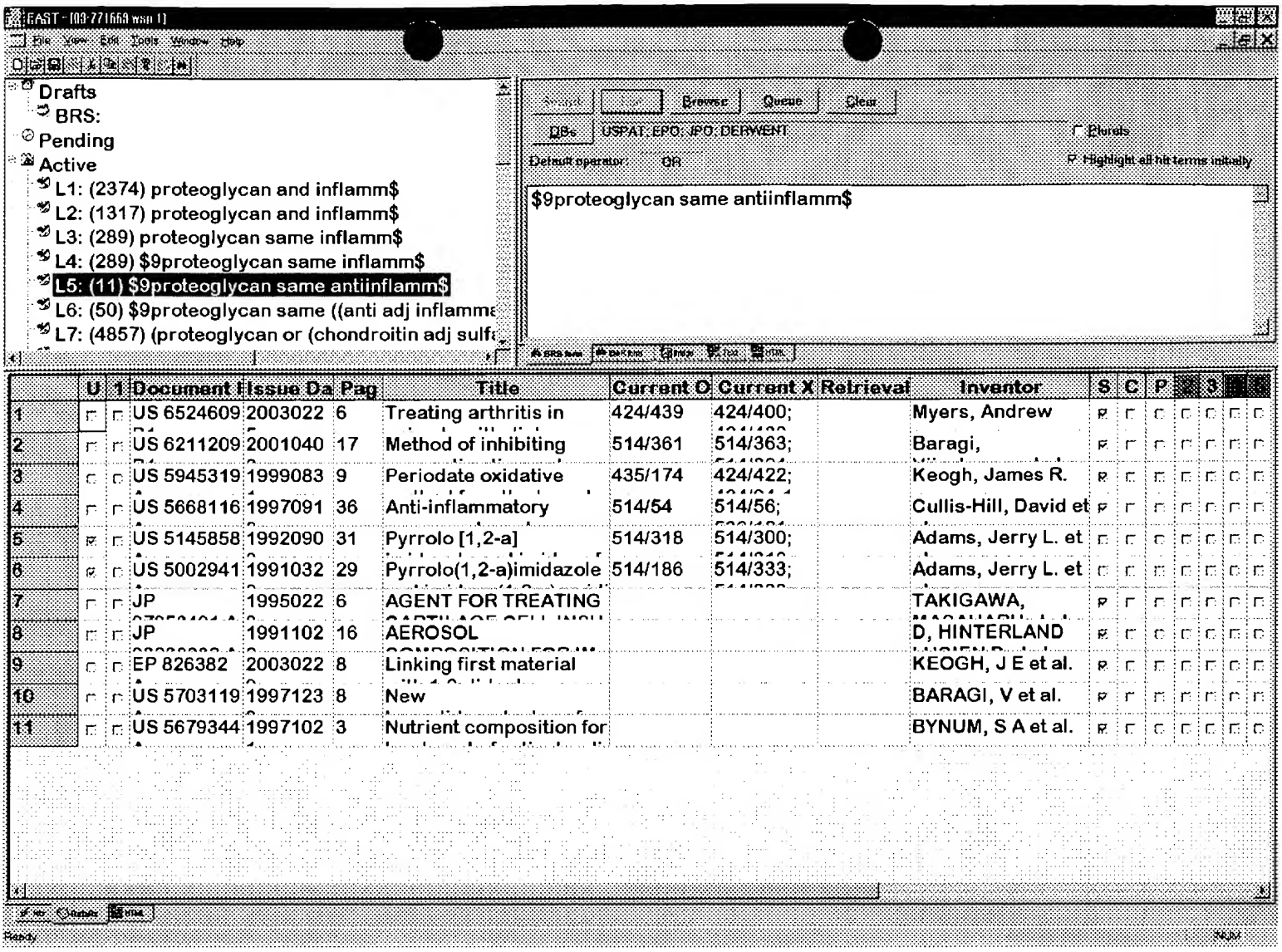


	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	3
31	☑	☐	US 5922359	1999071		Skin treatment	424/570			Youssefyeh, Rena	☐	☐	☐	☐
32	☑	☐	US 5874479	1999022	40	Therapeutic permeation	514/724	514/458;		Martin, Alain	☐	☐	☐	☐
33	☑	☐	US 5866158	1999020		Composition composed	424/450	424/401;		Ribier, Alain et al.	☐	☐	☐	☐
34	☑	☐	US 5863938	1999012	41	Antibacterial-wound	514/461	514/774;		Martin, Alain	☐	☐	☐	☐
35	☑	☐	US 5856364	1999010	64	Therapeutic	514/724	514/458;		Martin, Alain	☐	☐	☐	☐
36	☑	☐	US 5849272	1998121	9	Ultraviolet absorbing	424/59	424/401;		Baba, Katsuya et	☐	☐	☐	☐
37	☑	☐	US 5843407	1998120		Non-sweating lipsticks	424/64	252/299.01		El-Nokaly, Magda	☐	☐	☐	☐
38	☑	☐	US 5814343	1998092		Cosmetic composition	424/499	424/401;		Jones, Malcolm N	☐	☐	☐	☐
39	☑	☐	US 5767158	1998061		Endermic liniment	514/563	514/114;		Suetsugu, Masaru	☐	☐	☐	☐
40	☑	☐	US 5753223	1998051		Granular feed additives	424/94.3	424/442;		Shibahara,	☐	☐	☐	☐
41	☑	☐	US 5741518	1998042	15	Composition composed	424/450	424/401;		Ribier, Alain et al.	☐	☐	☐	☐
42	☑	☐	US 5692302	1997120	48	Razor cartridges	30/41			Martin, Alain et al.	☐	☐	☐	☐
43	☑	☐	US 5676966	1997101		Feed additive	424/438	424/442;		Kitamura,	☐	☐	☐	☐
44	☑	☐	US 5674912	1997100	44	Sunscreen-wound	514/724	424/59;		Martin, Alain	☐	☐	☐	☐
45	☑	☐	US 5663208	1997090	41	Antifungal wound	514/724	424/600;		Martin, Alain	☐	☐	☐	☐
46	☐	☐	US 5658957	1997081	40	Immunostimulating	514/724	424/502;		Martin, Alain	☐	☐	☐	☐



	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	3
40	☑	☐	US 5753223	1998051		Granular feed additives	424/94.3	424/442;		Shibahara,	☐	☐	☐	☐
41	☑	☐	US 5741518	1998042	15	Composition composed	424/450	424/401;		Ribier, Alain et al.	☐	☐	☐	☐
42	☑	☐	US 5692302	1997120	48	Razor cartridges	30/41			Martin, Alain et al.	☐	☐	☐	☐
43	☑	☐	US 5676966	1997101		Feed additive	424/438	424/442;		Kitamura,	☐	☐	☐	☐
44	☑	☐	US 5674912	1997100	44	Sunscreen-wound	514/724	424/59;		Martin, Alain	☐	☐	☐	☐
45	☑	☐	US 5663208	1997090	41	Antifungal wound	514/724	424/600;		Martin, Alain	☐	☐	☐	☐
46	☑	☐	US 5658957	1997081	49	Immunostimulating	514/724	424/502;		Martin, Alain	☐	☐	☐	☐
47	☑	☐	US 5648380	1997071	41	Anti-inflammatory	514/461	514/284;		Martin, Alain	☐	☐	☐	☐
48	☑	☐	US 5633285	1997052	73	Cytoprotective wound	514/724	514/458;		Martin, Alain	☐	☐	☐	☐
49	☑	☐	US 5602183	1997021	42	Dermatological wound	514/724	424/DIG.1		Martin, Alain et al.	☐	☐	☐	☐
50	☑	☐	US 5510120	1996042		Cosmetic composition	424/499	424/401;		Jones, Malcolm N.	☐	☐	☐	☐
51	☑	☐	US 5437693	1995080		Heavy oil emulsion fuel	44/302	44/445		Iizuka, Masanori et	☐	☐	☐	☐
52	☑	☐	US 4434159	1984022		Pharmaceutical	514/3	424/DIG.1		Sekine, Kunio et	☐	☐	☐	☐
53	☑	☐	US 4430356	1984020		Method for production	426/574	426/580;		Ohyabu, Shuzo et	☐	☐	☐	☐
54	☑	☐	JP	1992020		HAND CREAM				KINEKAWA,	☐	☐	☐	☐



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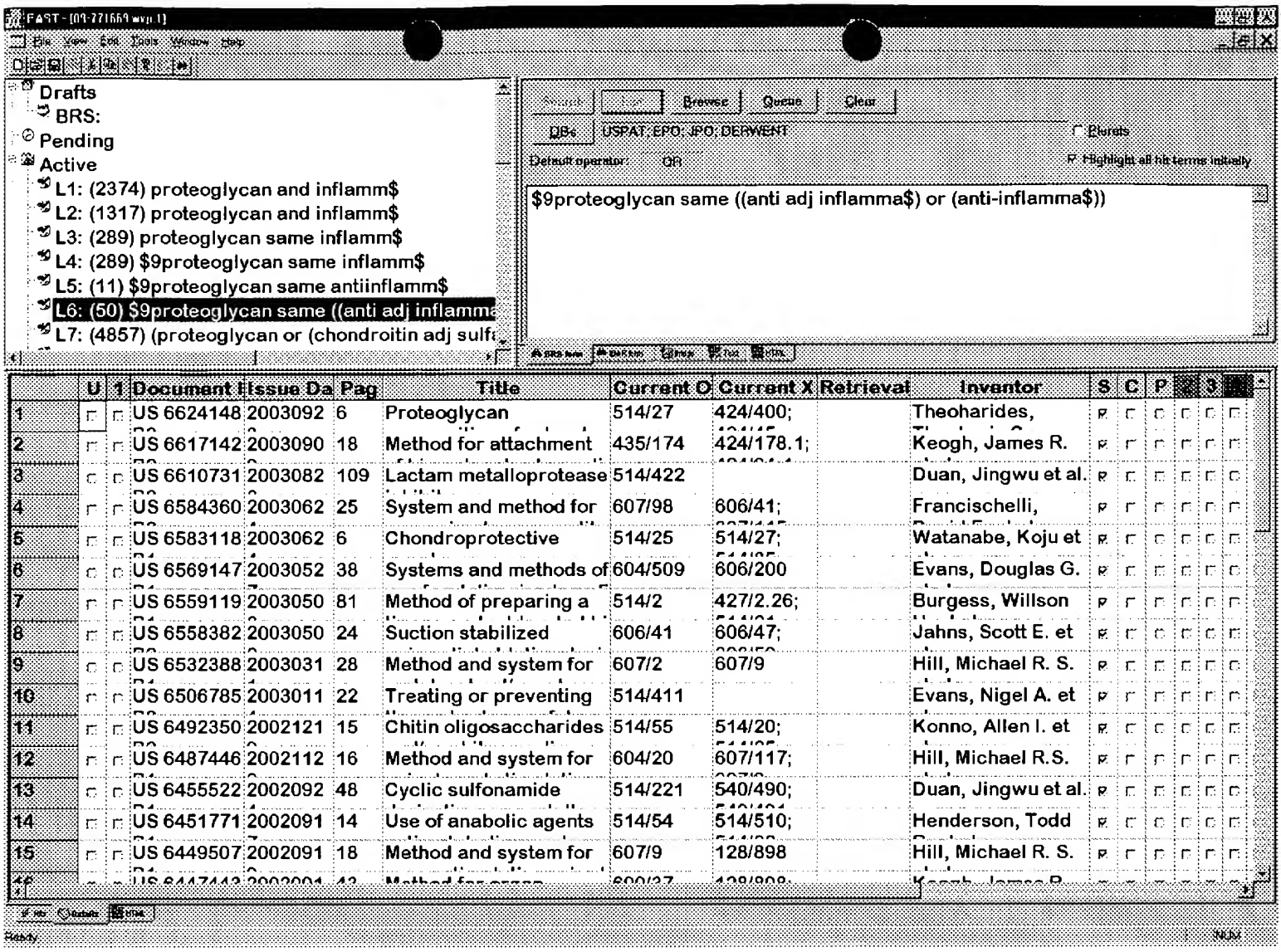
1	☐	☐	US 6524609	2003022	6	Treating arthritis in	424/439	424/400;		Myers, Andrew	☑	☐	☐	☐	☐	☐	☐
2	☐	☐	US 6211209	2001040	17	Method of inhibiting	514/361	514/363;		Baragi,	☑	☐	☐	☐	☐	☐	☐
3	☐	☐	US 5945319	1999083	9	Periodate oxidative	435/174	424/422;		Keogh, James R.	☑	☐	☐	☐	☐	☐	☐
4	☐	☐	US 5668116	1997091	36	Anti-inflammatory	514/54	514/56;		Cullis-Hill, David et	☑	☐	☐	☐	☐	☐	☐
5	☑	☐	US 5145858	1992090	31	Pyrrolo [1,2-a]	514/318	514/300;		Adams, Jerry L. et	☐	☐	☐	☐	☐	☐	☐
6	☑	☐	US 5002941	1991032	29	Pyrrolo(1,2-a)imidazole	514/186	514/333;		Adams, Jerry L. et	☐	☐	☐	☐	☐	☐	☐
7	☐	☐	JP	1995022	6	AGENT FOR TREATING				TAKIGAWA,	☑	☐	☐	☐	☐	☐	☐
8	☐	☐	JP	1991102	16	AEROSOL				D, HINTERLAND	☑	☐	☐	☐	☐	☐	☐
9	☐	☐	EP 826382	2003022	8	Linking first material				KEOGH, J E et al.	☑	☐	☐	☐	☐	☐	☐
10	☐	☐	US 5703119	1997123	8	New				BARAGI, V et al.	☑	☐	☐	☐	☐	☐	☐
11	☐	☐	US 5679344	1997102	3	Nutrient composition for				BYNUM, S A et al.	☑	☐	☐	☐	☐	☐	☐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1 US 6624148 2003092 6 Proteoglycan 514/27 424/400; Theoharides,
2 US 6617142 2003090 18 Method for attachment 435/174 424/178.1; Keogh, James R.
3 US 6610731 2003082 109 Lactam metalloprotease 514/422 Duan, Jingwu et al.
4 US 6584360 2003062 25 System and method for 607/98 606/41; Francischelli,
5 US 6583118 2003062 6 Chondroprotective 514/25 514/27; Watanabe, Koju et
6 US 6569147 2003052 38 Systems and methods of 604/509 606/200 Evans, Douglas G.
7 US 6559119 2003050 81 Method of preparing a 514/2 427/2.26; Burgess, Willson
8 US 6558382 2003050 24 Suction stabilized 606/41 606/47; Jahns, Scott E. et
9 US 6532388 2003031 28 Method and system for 607/2 607/9 Hill, Michael R. S.
10 US 6506785 2003011 22 Treating or preventing 514/411 Evans, Nigel A. et
11 US 6492350 2002121 15 Chitin oligosaccharides 514/55 514/20; Konno, Allen I. et
12 US 6487446 2002112 16 Method and system for 604/20 607/117; Hill, Michael R.S.
13 US 6455522 2002092 48 Cyclic sulfonamide 514/221 540/490; Duan, Jingwu et al.
14 US 6451771 2002091 14 Use of anabolic agents 514/54 514/510; Henderson, Todd
15 US 6449507 2002091 18 Method and system for 607/9 128/898 Hill, Michael R. S.
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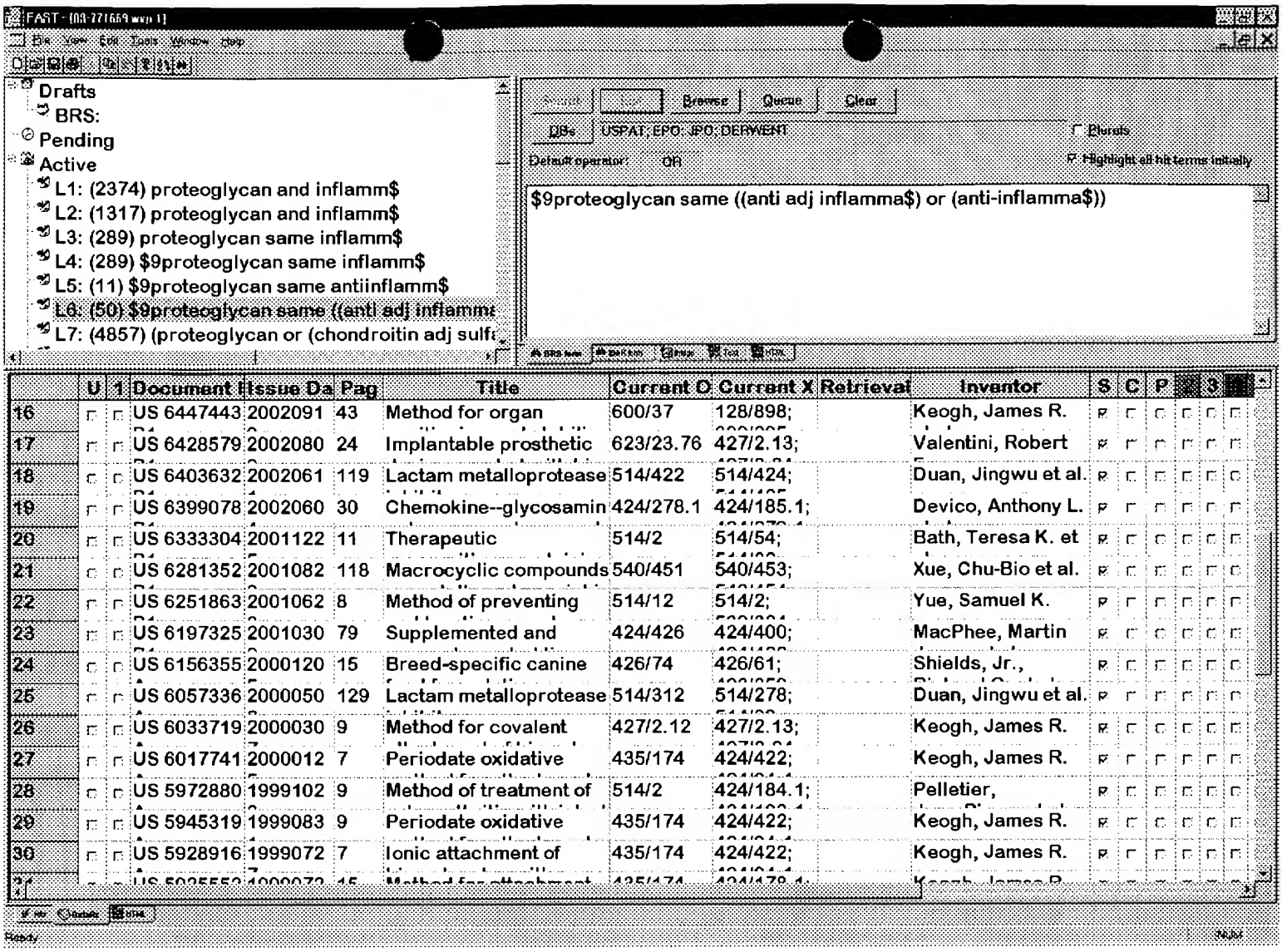
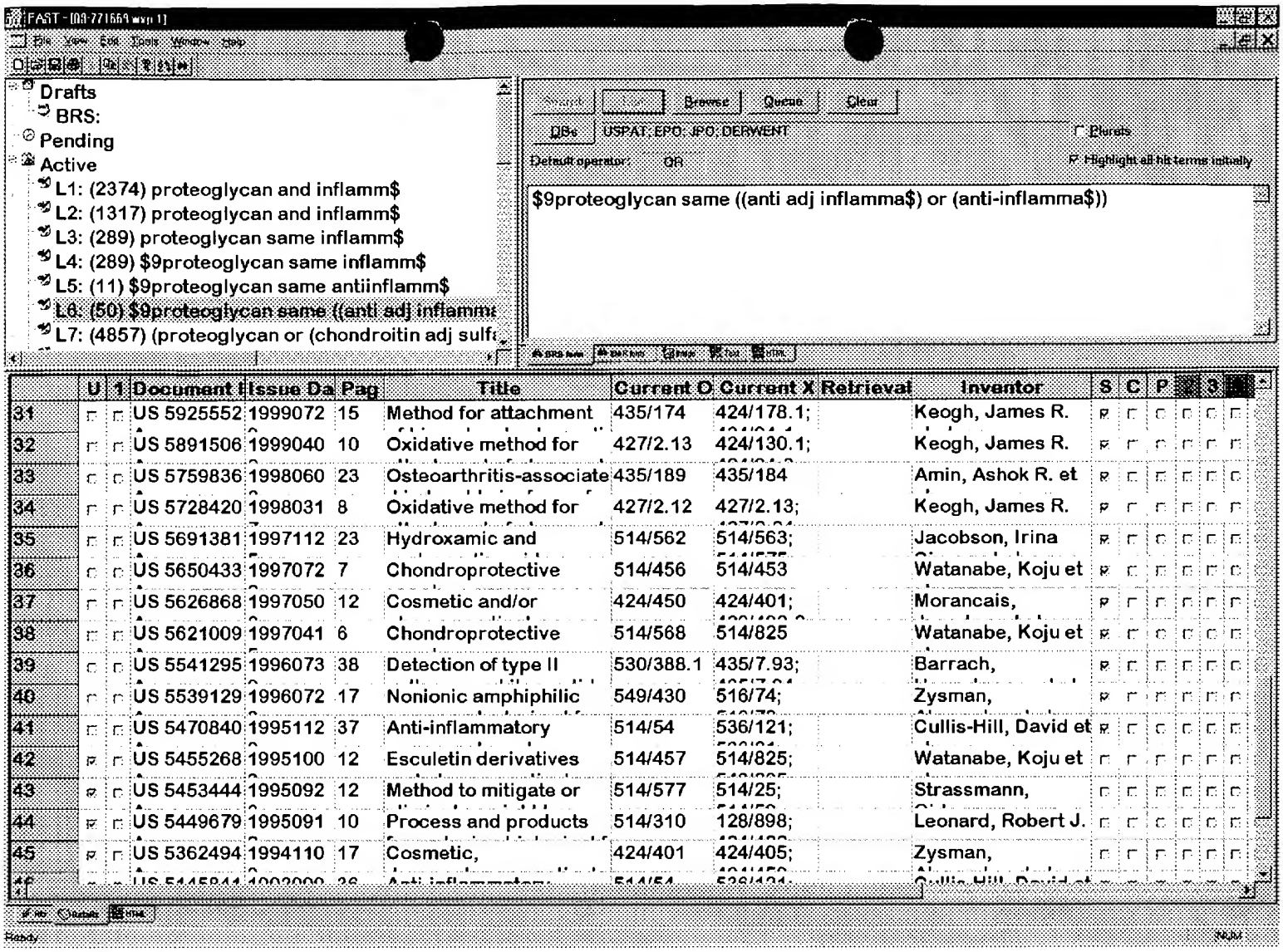


	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	2	3
16	☐	☐	US 6447443	2002091	43	Method for organ	600/37	128/898;		Keogh, James R.	☑	☐	☐	☐	☐
17	☐	☐	US 6428579	2002080	24	Implantable prosthetic	623/23.76	427/2.13;		Valentini, Robert	☑	☐	☐	☐	☐
18	☐	☐	US 6403632	2002061	119	Lactam metalloprotease	514/422	514/424;		Duan, Jingwu et al.	☑	☐	☐	☐	☐
19	☐	☐	US 6399078	2002060	30	Chemokine--glycosamin	424/278.1	424/185.1;		Devico, Anthony L.	☑	☐	☐	☐	☐
20	☐	☐	US 6333304	2001122	11	Therapeutic	514/2	514/54;		Bath, Teresa K. et	☑	☐	☐	☐	☐
21	☐	☐	US 6281352	2001082	118	Macrocyclic compounds	540/451	540/453;		Xue, Chu-Bio et al.	☑	☐	☐	☐	☐
22	☐	☐	US 6251863	2001062	8	Method of preventing	514/12	514/2;		Yue, Samuel K.	☑	☐	☐	☐	☐
23	☐	☐	US 6197325	2001030	79	Supplemented and	424/426	424/400;		MacPhee, Martin	☑	☐	☐	☐	☐
24	☐	☐	US 6156355	2000120	15	Breed-specific canine	426/74	426/61;		Shields, Jr.,	☑	☐	☐	☐	☐
25	☐	☐	US 6057336	2000050	129	Lactam metalloprotease	514/312	514/278;		Duan, Jingwu et al.	☑	☐	☐	☐	☐
26	☐	☐	US 6033719	2000030	9	Method for covalent	427/2.12	427/2.13;		Keogh, James R.	☑	☐	☐	☐	☐
27	☐	☐	US 6017741	2000012	7	Periodate oxidative	435/174	424/422;		Keogh, James R.	☑	☐	☐	☐	☐
28	☐	☐	US 5972880	1999102	9	Method of treatment of	514/2	424/184.1;		Pelletier,	☑	☐	☐	☐	☐
29	☐	☐	US 5945319	1999083	9	Periodate oxidative	435/174	424/422;		Keogh, James R.	☑	☐	☐	☐	☐
30	☐	☐	US 5928916	1999072	7	Ionic attachment of	435/174	424/422;		Keogh, James R.	☑	☐	☐	☐	☐
31	☐	☐	US 5925552	1999072	15	Method for attachment	435/174	424/178.1;		Keogh, James R.	☐	☐	☐	☐	☐



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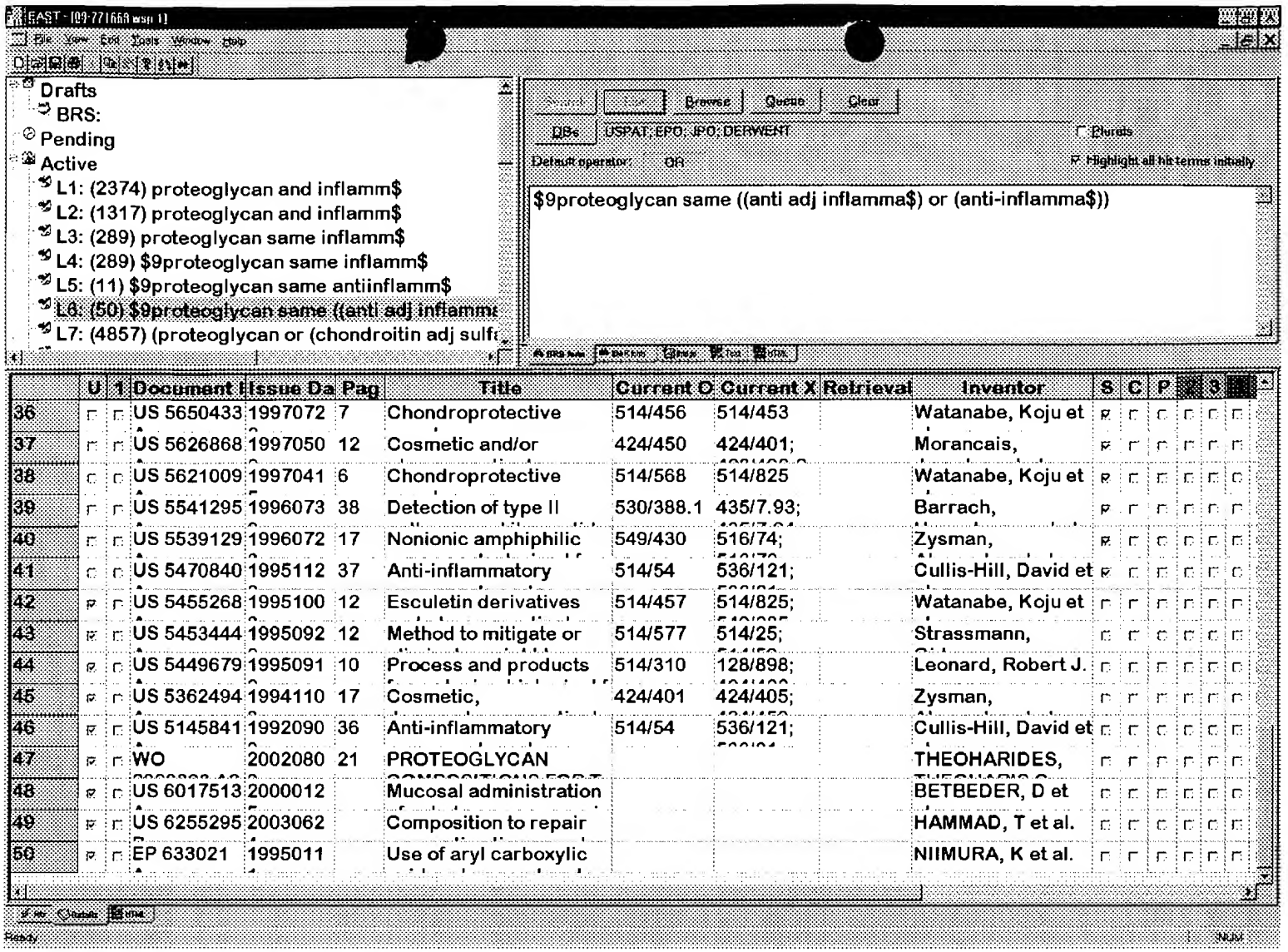
31	☐	☐	US 5925552	1999072	15	Method for attachment	435/174	424/178.1;		Keogh, James R.	☑	☐	☐	☐
32	☐	☐	US 5891506	1999040	10	Oxidative method for	427/2.13	424/130.1;		Keogh, James R.	☑	☐	☐	☐
33	☐	☐	US 5759836	1998060	23	Osteoarthritis-associate	435/189	435/184		Amin, Ashok R. et	☑	☐	☐	☐
34	☐	☐	US 5728420	1998031	8	Oxidative method for	427/2.12	427/2.13;		Keogh, James R.	☑	☐	☐	☐
35	☐	☐	US 5691381	1997112	23	Hydroxamic and	514/562	514/563;		Jacobson, Irina	☑	☐	☐	☐
36	☐	☐	US 5650433	1997072	7	Chondroprotective	514/456	514/453		Watanabe, Koju et	☑	☐	☐	☐
37	☐	☐	US 5626868	1997050	12	Cosmetic and/or	424/450	424/401;		Morancais,	☑	☐	☐	☐
38	☐	☐	US 5621009	1997041	6	Chondroprotective	514/568	514/825		Watanabe, Koju et	☑	☐	☐	☐
39	☐	☐	US 5541295	1996073	38	Detection of type II	530/388.1	435/7.93;		Barrach,	☑	☐	☐	☐
40	☐	☐	US 5539129	1996072	17	Nonionic amphiphilic	549/430	516/74;		Zysman,	☑	☐	☐	☐
41	☐	☐	US 5470840	1995112	37	Anti-inflammatory	514/54	536/121;		Cullis-Hill, David et	☑	☐	☐	☐
42	☑	☐	US 5455268	1995100	12	Esculetin derivatives	514/457	514/825;		Watanabe, Koju et	☐	☐	☐	☐
43	☑	☐	US 5453444	1995092	12	Method to mitigate or	514/577	514/25;		Strassmann,	☐	☐	☐	☐
44	☑	☐	US 5449679	1995091	10	Process and products	514/310	128/898;		Leonard, Robert J.	☐	☐	☐	☐
45	☑	☐	US 5362494	1994110	17	Cosmetic,	424/401	424/405;		Zysman,	☐	☐	☐	☐
46	☐	☐	US 5445841	1995090	36	Anti-inflammatory	514/54	536/121;		Cullis-Hill, David et	☐	☐	☐	☐



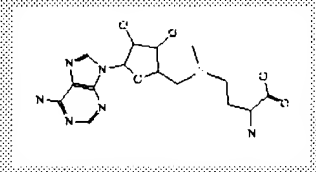
	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	2	3
36	☐	☐	US 5650433	1997072	7	Chondroprotective	514/456	514/453		Watanabe, Koju et	☑	☐	☐	☐	☐
37	☐	☐	US 5626868	1997050	12	Cosmetic and/or	424/450	424/401;		Morancais,	☑	☐	☐	☐	☐
38	☐	☐	US 5621009	1997041	6	Chondroprotective	514/568	514/825		Watanabe, Koju et	☑	☐	☐	☐	☐
39	☐	☐	US 5541295	1996073	38	Detection of type II	530/388.1	435/7.93;		Barrach,	☑	☐	☐	☐	☐
40	☐	☐	US 5539129	1996072	17	Nonionic amphiphilic	549/430	516/74;		Zysman,	☑	☐	☐	☐	☐
41	☐	☐	US 5470840	1995112	37	Anti-inflammatory	514/54	536/121;		Cullis-Hill, David et	☑	☐	☐	☐	☐
42	☑	☐	US 5455268	1995100	12	Esculetin derivatives	514/457	514/825;		Watanabe, Koju et	☐	☐	☐	☐	☐
43	☑	☐	US 5453444	1995092	12	Method to mitigate or	514/577	514/25;		Strassmann,	☐	☐	☐	☐	☐
44	☑	☐	US 5449679	1995091	10	Process and products	514/310	128/898;		Leonard, Robert J.	☐	☐	☐	☐	☐
45	☑	☐	US 5362494	1994110	17	Cosmetic,	424/401	424/405;		Zysman,	☐	☐	☐	☐	☐
46	☑	☐	US 5145841	1992090	36	Anti-inflammatory	514/54	536/121;		Cullis-Hill, David et	☐	☐	☐	☐	☐
47	☑	☐	WO	2002080	21	PROTEOGLYCAN				THEOHARIDES,	☐	☐	☐	☐	☐
48	☑	☐	US 6017513	2000012		Mucosal administration				BETBEDER, D et	☐	☐	☐	☐	☐
49	☑	☐	US 6255295	2003062		Composition to repair				HAMMAD, T et al.	☐	☐	☐	☐	☐
50	☑	☐	EP 633021	1995011		Use of aryl carboxylic				NIIMURA, K et al.	☐	☐	☐	☐	☐

Off-site

Generate hydrogens and dictionaries (MOL2, GROMOS87, GROMACS, WHAT IF, HEX, CNS, O, and SHELX) using the PRODRG server in Dundee.

Run PRODRG

PDBsum (UCL) list of PDB files and other information for "SAM"



Check Relibase (EBI) [SAM]

Entry for "SAM" in the Hetero Components Database (Jena)

NIST Chemistry Webbook hits for formula C15 H22 N6 O5 S1

Summary of HETZE report :

```
Residue type                  : (SAM)
Identifier                    : ( 2922)
Segment ID                    : ( )

Nr of atoms                   : (      27)
List of elements (from file)  : ( C15 H22 N6 O5 S1)
Deduced formula               : (C15 N6 O5 S1)
Guestimated total nr of Hs    : (      21)
Nr of extra examples          : (       0)

Nr of distances < 0.5 A       : (       0)
Nr of bond angles < 60 degrees : (       0)

Nr of bonds found             : (      29)
... bonds without ideal value : (       0)
... bonds near ideal value    : (      29)
... bonds far from ideal value : (       0)
        -"-                 % : (   0.000)

Nr of angles found            : (      42)

Nr of dihedrals found         : (      56)

Nr of atoms with impropers    : (      11)
... imprs far from ideal value : (       1)
        -"-                 % : (   9.091)

Nr of flat planes             : (      11)
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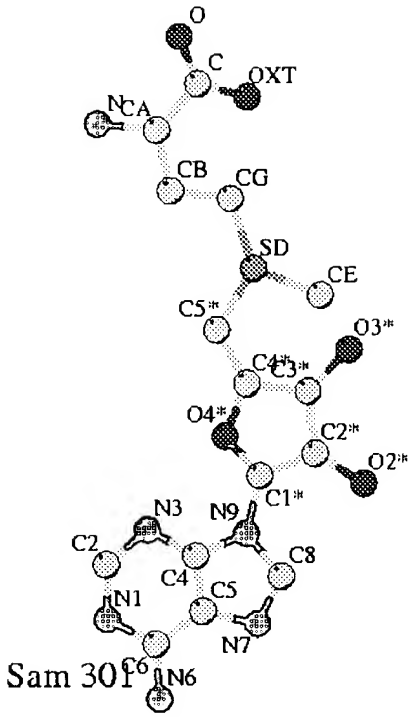


Created at Sun Dec 02 16:58:48 2001.

HIC-Up

Acronym:	**SAM**
PDB entry:	**1ej0 (RCSB-PDB) (PDBsum)**
Formula:	**C15 H22 N6 O5 S1**
Resolution (Å):	**1.50**
Name(s):	**s-adenosylmethionine**

WARNING - alternative chemical formulas found: C15 H22 N6 O5 S1 ... C15 H23 N6 O5 S1

| Coordinates | Visualisation | Dictionaries | Miscellaneous | Off-site | Rest |

Coordinates

PDB file (".pdb", with REMARK and HETATM records)

PDB file (".txt"; with REMARK and HETATM records)

Clean PDB file (".pdb"; no REMARKs; ATOM records)

Clean PDB file (".txt"; no REMARKs; ATOM records)

Visualisation

VRML file

ChemScape Chime page

Dictionaries

PDB dictionary file (CONECT records, etc.)

X-PLOR/CNS topology file

X-PLOR/CNS parameter file (0 warnings, 2 notes)

X-PLOR/CNS energy minimisation input file

O RS_FIT datablock

O RSR datablock

O connectivity entry

O torsion entry

O Refi dictionary entry

TNT dictionary file

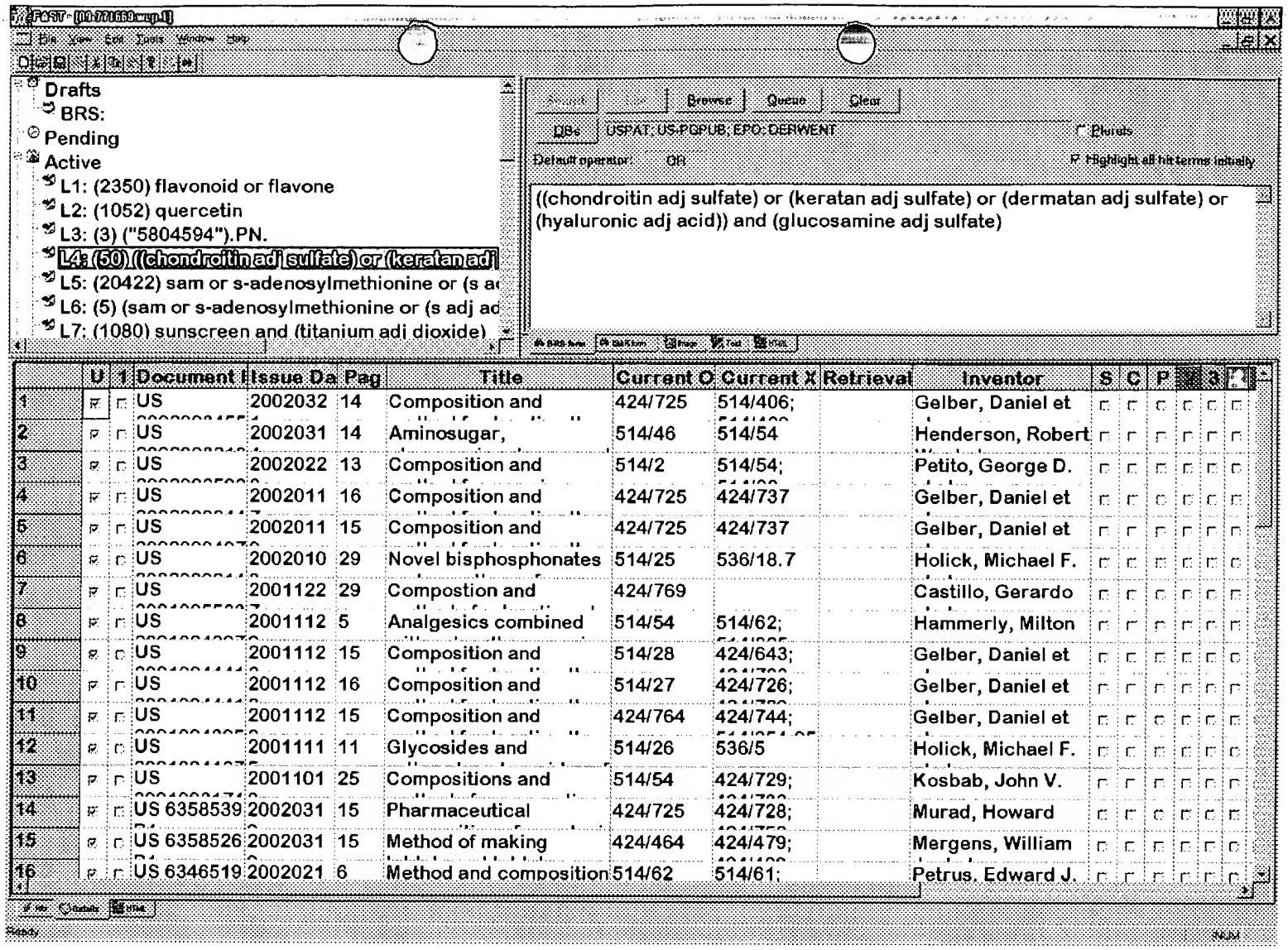
Miscellaneous

Disclaimer

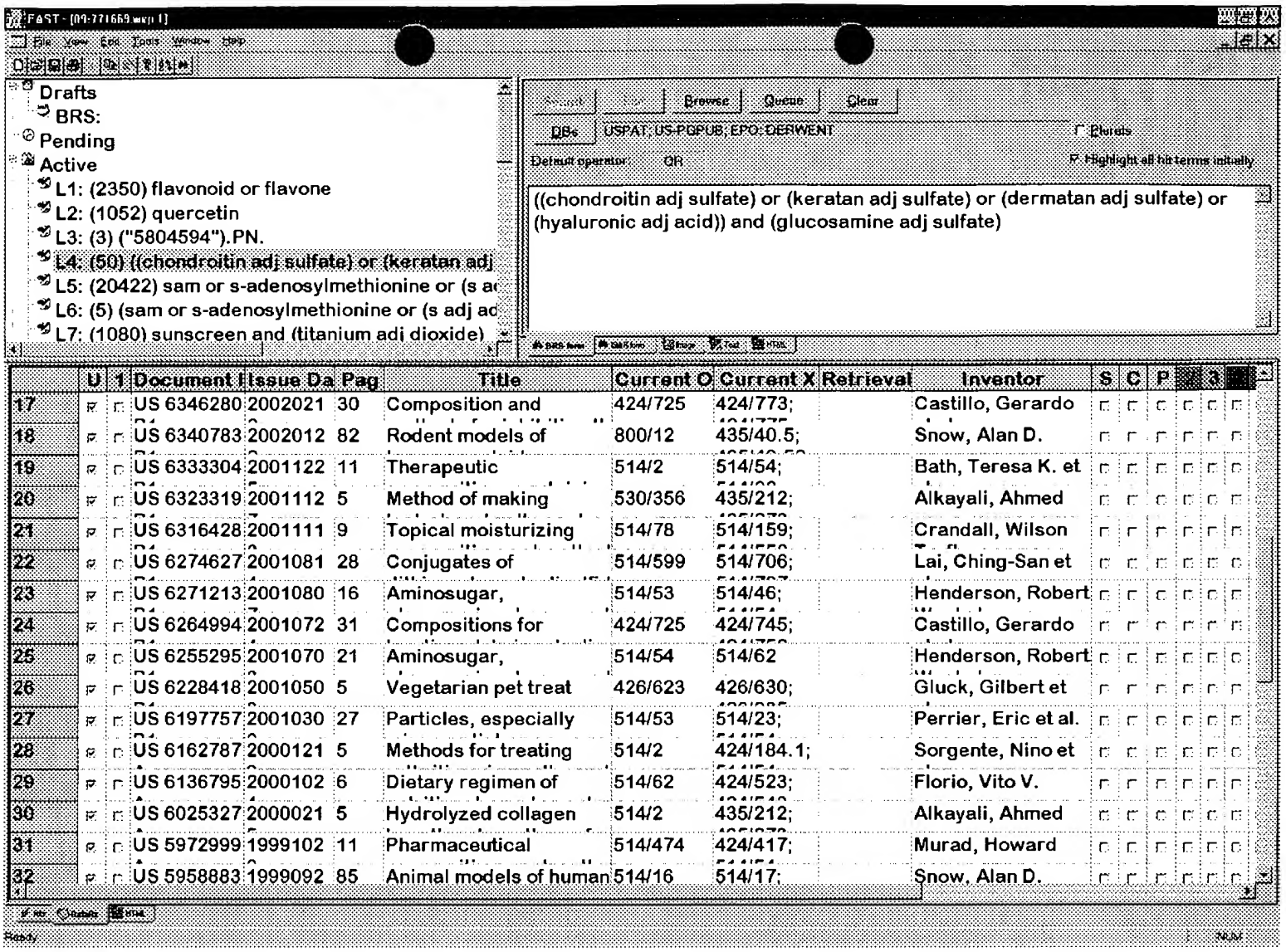
HETZE log file (quality assessment)

Connection table file

No superstructures found



	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	3
1			US	2002032	14	Composition and	424/725	514/406;		Gelber, Daniel et				
2			US	2002031	14	Aminosugar,	514/46	514/54		Henderson, Robert				
3			US	2002022	13	Composition and	514/2	514/54;		Petito, George D.				
4			US	2002011	16	Composition and	424/725	424/737		Gelber, Daniel et				
5			US	2002011	15	Composition and	424/725	424/737		Gelber, Daniel et				
6			US	2002010	29	Novel bisphosphonates	514/25	536/18.7		Holick, Michael F.				
7			US	2001122	29	Compostion and	424/769			Castillo, Gerardo				
8			US	2001112	5	Analgesics combined	514/54	514/62;		Hammerly, Milton				
9			US	2001112	15	Composition and	514/28	424/643;		Gelber, Daniel et				
10			US	2001112	16	Composition and	514/27	424/726;		Gelber, Daniel et				
11			US	2001112	15	Composition and	424/764	424/744;		Gelber, Daniel et				
12			US	2001111	11	Glycosides and	514/26	536/5		Holick, Michael F.				
13			US	2001101	25	Compositions and	514/54	424/729;		Kosbab, John V.				
14			US 6358539	2002031	15	Pharmaceutical	424/725	424/728;		Murad, Howard				
15			US 6358526	2002031	15	Method of making	424/464	424/479;		Mergens, William				
16			US 6346519	2002021	6	Method and composition	514/62	514/61;		Petrus, Edward J.				



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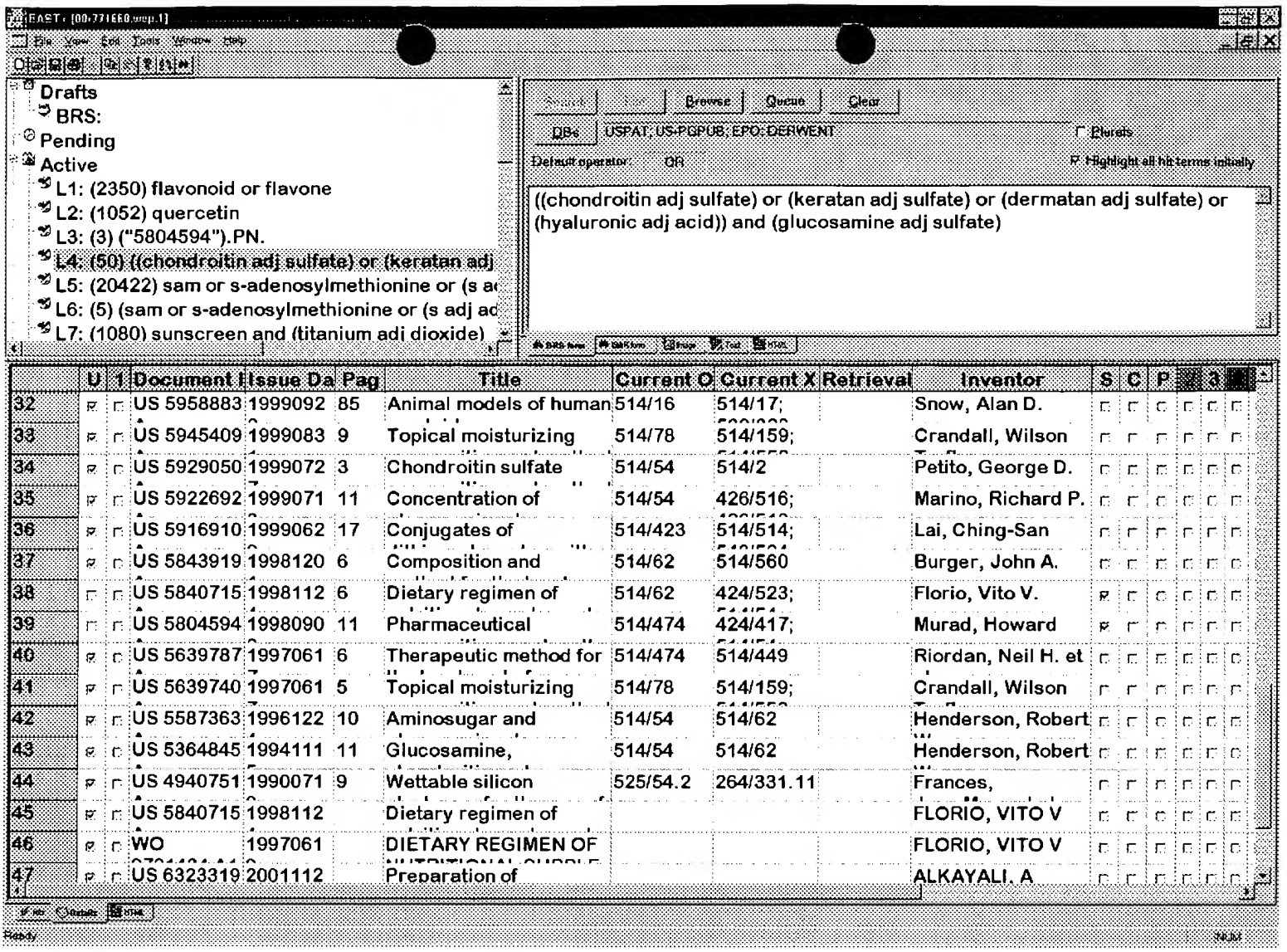
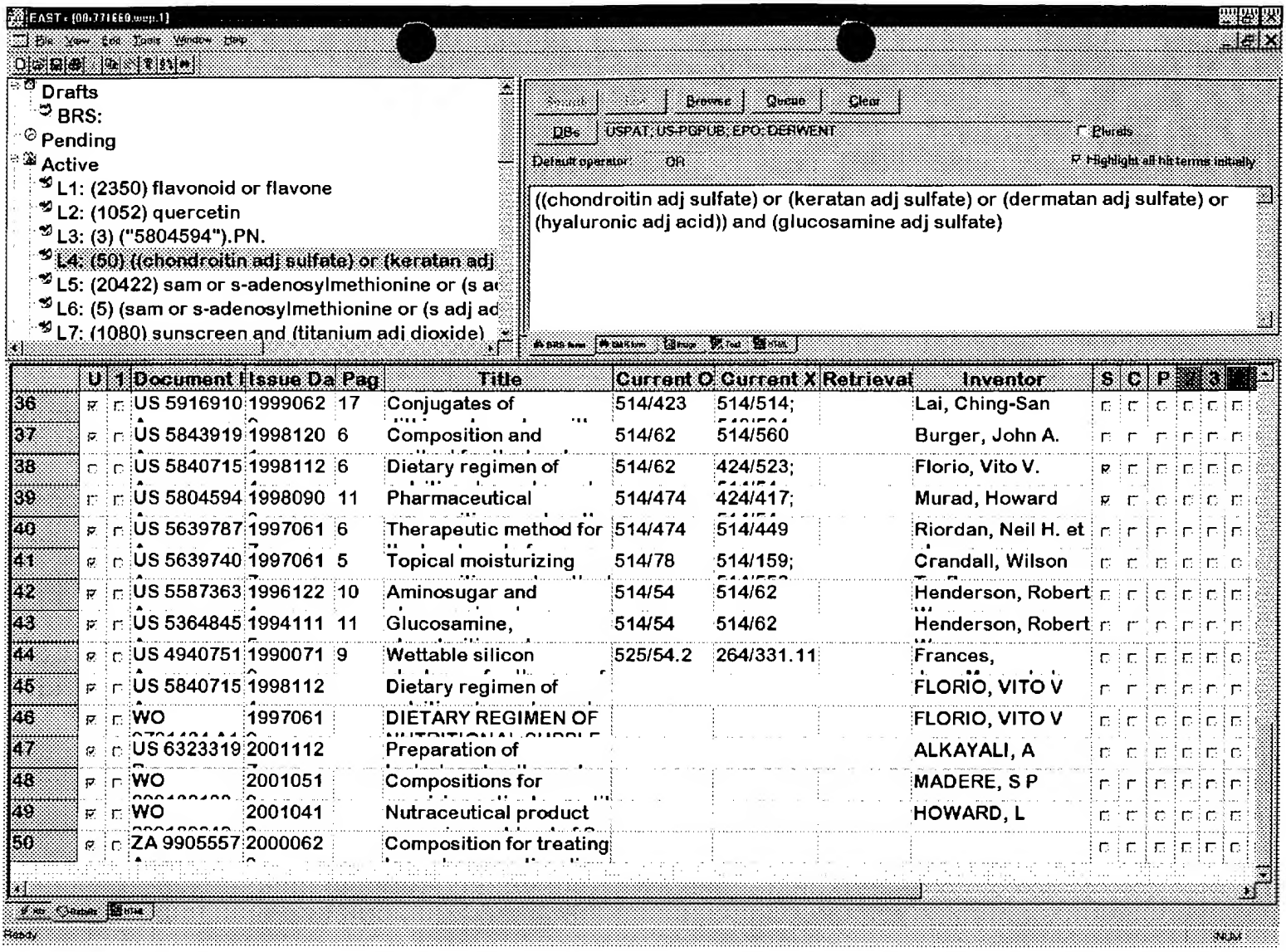
17	☑	☐	US 6346280	2002021	30	Composition and	424/725	424/773;		Castillo, Gerardo	☐	☐	☐	☐	☐
18	☑	☐	US 6340783	2002012	82	Rodent models of	800/12	435/40.5;		Snow, Alan D.	☐	☐	☐	☐	☐
19	☑	☐	US 6333304	2001122	11	Therapeutic	514/2	514/54;		Bath, Teresa K. et	☐	☐	☐	☐	☐
20	☑	☐	US 6323319	2001112	5	Method of making	530/356	435/212;		Alkayali, Ahmed	☐	☐	☐	☐	☐
21	☑	☐	US 6316428	2001111	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☐	☐	☐	☐	☐
22	☑	☐	US 6274627	2001081	28	Conjugates of	514/599	514/706;		Lai, Ching-San et	☐	☐	☐	☐	☐
23	☑	☐	US 6271213	2001080	16	Aminosugar,	514/53	514/46;		Henderson, Robert	☐	☐	☐	☐	☐
24	☑	☐	US 6264994	2001072	31	Compositions for	424/725	424/745;		Castillo, Gerardo	☐	☐	☐	☐	☐
25	☑	☐	US 6255295	2001070	21	Aminosugar,	514/54	514/62		Henderson, Robert	☐	☐	☐	☐	☐
26	☑	☐	US 6228418	2001050	5	Vegetarian pet treat	426/623	426/630;		Gluck, Gilbert et	☐	☐	☐	☐	☐
27	☑	☐	US 6197757	2001030	27	Particles, especially	514/53	514/23;		Perrier, Eric et al.	☐	☐	☐	☐	☐
28	☑	☐	US 6162787	2000121	5	Methods for treating	514/2	424/184.1;		Sorgente, Nino et	☐	☐	☐	☐	☐
29	☑	☐	US 6136795	2000102	6	Dietary regimen of	514/62	424/523;		Florio, Vito V.	☐	☐	☐	☐	☐
30	☑	☐	US 6025327	2000021	5	Hydrolyzed collagen	514/2	435/212;		Alkayali, Ahmed	☐	☐	☐	☐	☐
31	☑	☐	US 5972999	1999102	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☐	☐	☐	☐	☐
32	☑	☐	US 5958883	1999092	85	Animal models of human	514/16	514/17;		Snow, Alan D.	☐	☐	☐	☐	☐



	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	3
32	☑	☐	US 5958883	1999092	85	Animal models of human	514/16	514/17;		Snow, Alan D.	☐	☐	☐	☐
33	☑	☐	US 5945409	1999083	9	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☐	☐	☐	☐
34	☑	☐	US 5929050	1999072	3	Chondroitin sulfate	514/54	514/2		Petito, George D.	☐	☐	☐	☐
35	☑	☐	US 5922692	1999071	11	Concentration of	514/54	426/516;		Marino, Richard P.	☐	☐	☐	☐
36	☑	☐	US 5916910	1999062	17	Conjugates of	514/423	514/514;		Lai, Ching-San	☐	☐	☐	☐
37	☑	☐	US 5843919	1998120	6	Composition and	514/62	514/560		Burger, John A.	☐	☐	☐	☐
38	☐	☐	US 5840715	1998112	6	Dietary regimen of	514/62	424/523;		Florio, Vito V.	☑	☐	☐	☐
39	☐	☐	US 5804594	1998090	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐
40	☑	☐	US 5639787	1997061	6	Therapeutic method for	514/474	514/449		Riordan, Neil H. et	☐	☐	☐	☐
41	☑	☐	US 5639740	1997061	5	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☐	☐	☐	☐
42	☑	☐	US 5587363	1996122	10	Aminosugar and	514/54	514/62		Henderson, Robert	☐	☐	☐	☐
43	☑	☐	US 5364845	1994111	11	Glucosamine,	514/54	514/62		Henderson, Robert	☐	☐	☐	☐
44	☑	☐	US 4940751	1990071	9	Wettable silicon	525/54.2	264/331.11		Frances,	☐	☐	☐	☐
45	☑	☐	US 5840715	1998112		Dietary regimen of				FLORIO, VITO V	☐	☐	☐	☐
46	☑	☐	WO	1997061		DIETARY REGIMEN OF				FLORIO, VITO V	☐	☐	☐	☐
47	☑	☐	US 6323319	2001112		Preparation of				ALKAYALI, A	☐	☐	☐	☐



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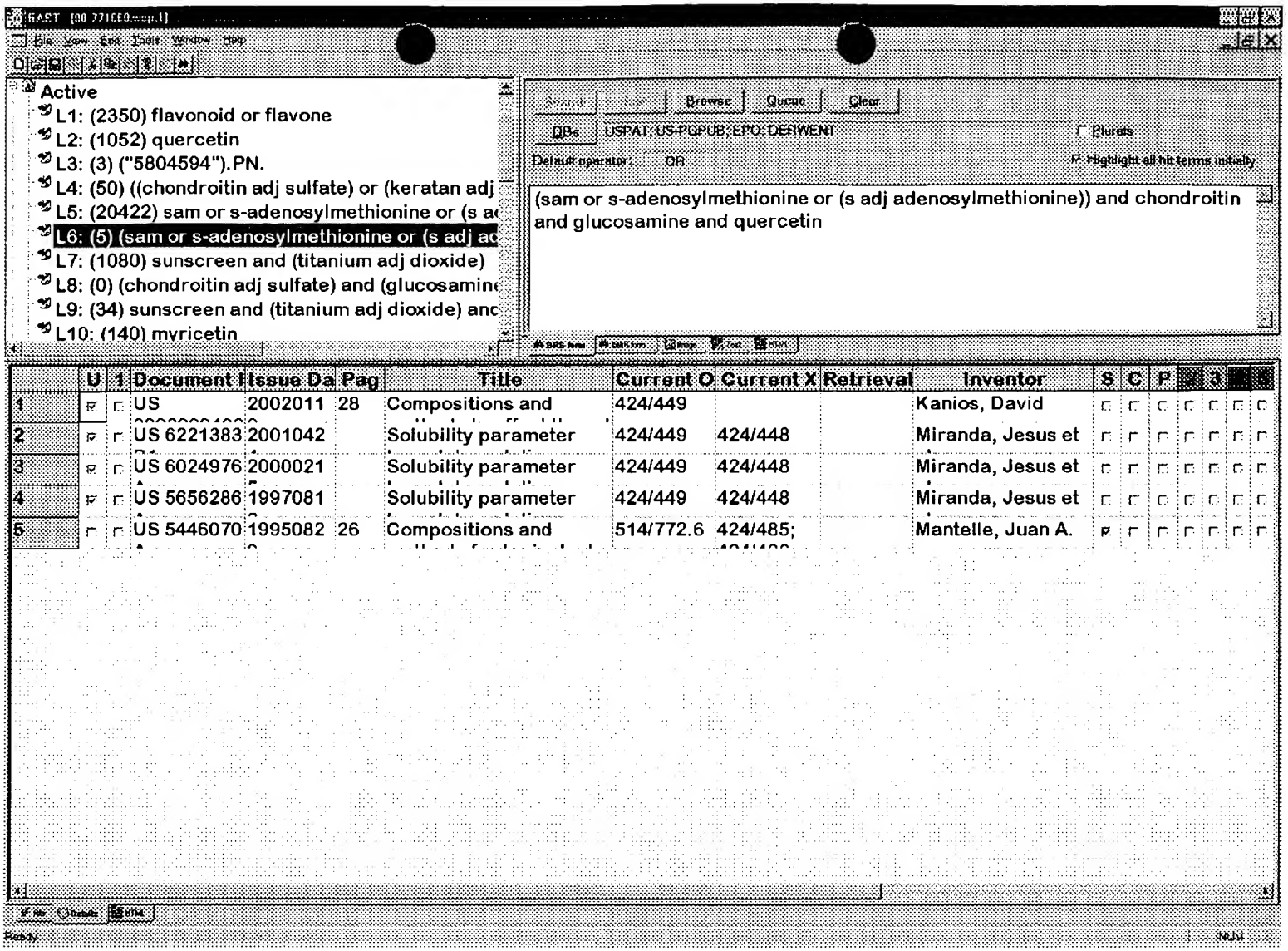
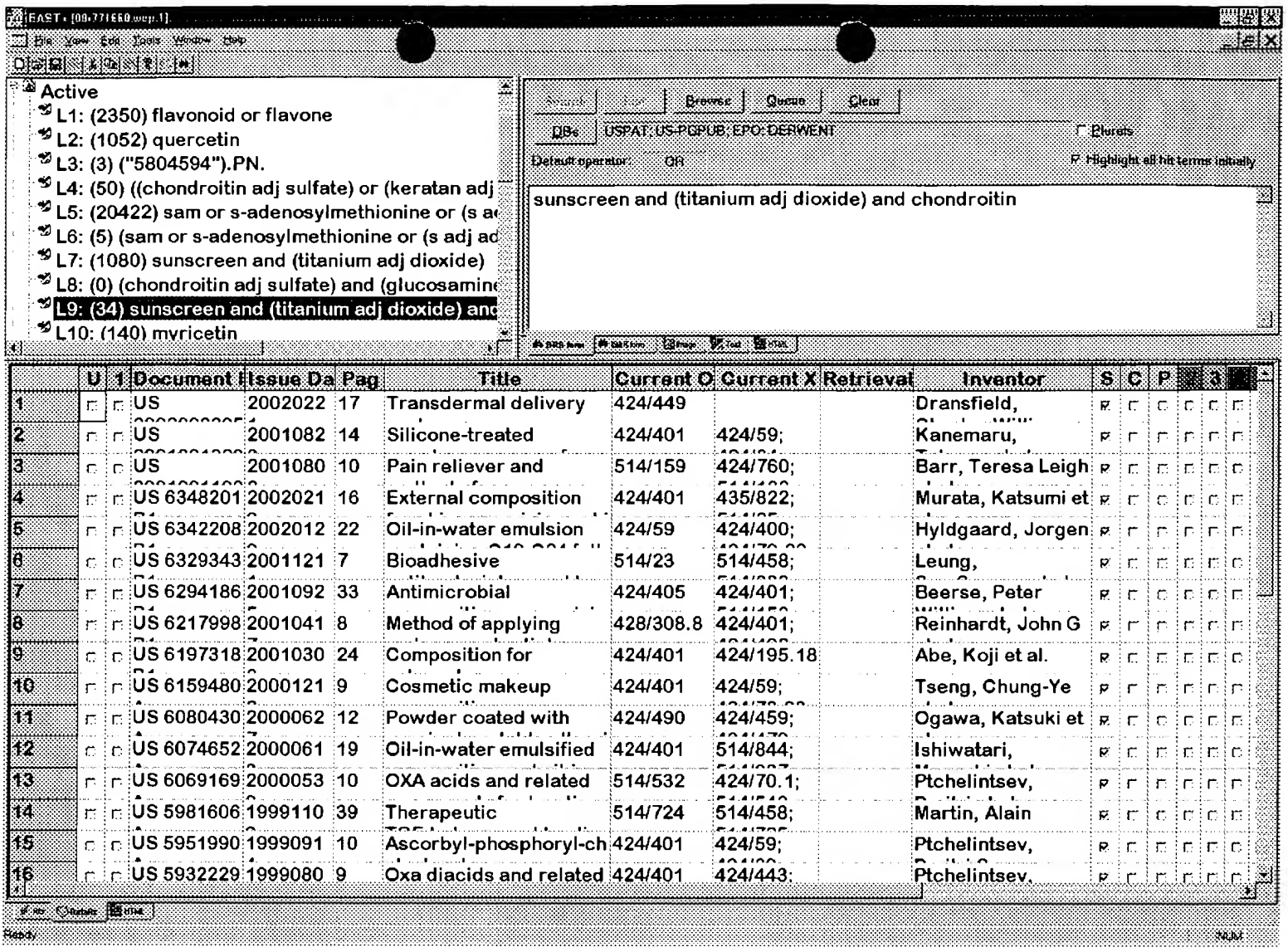
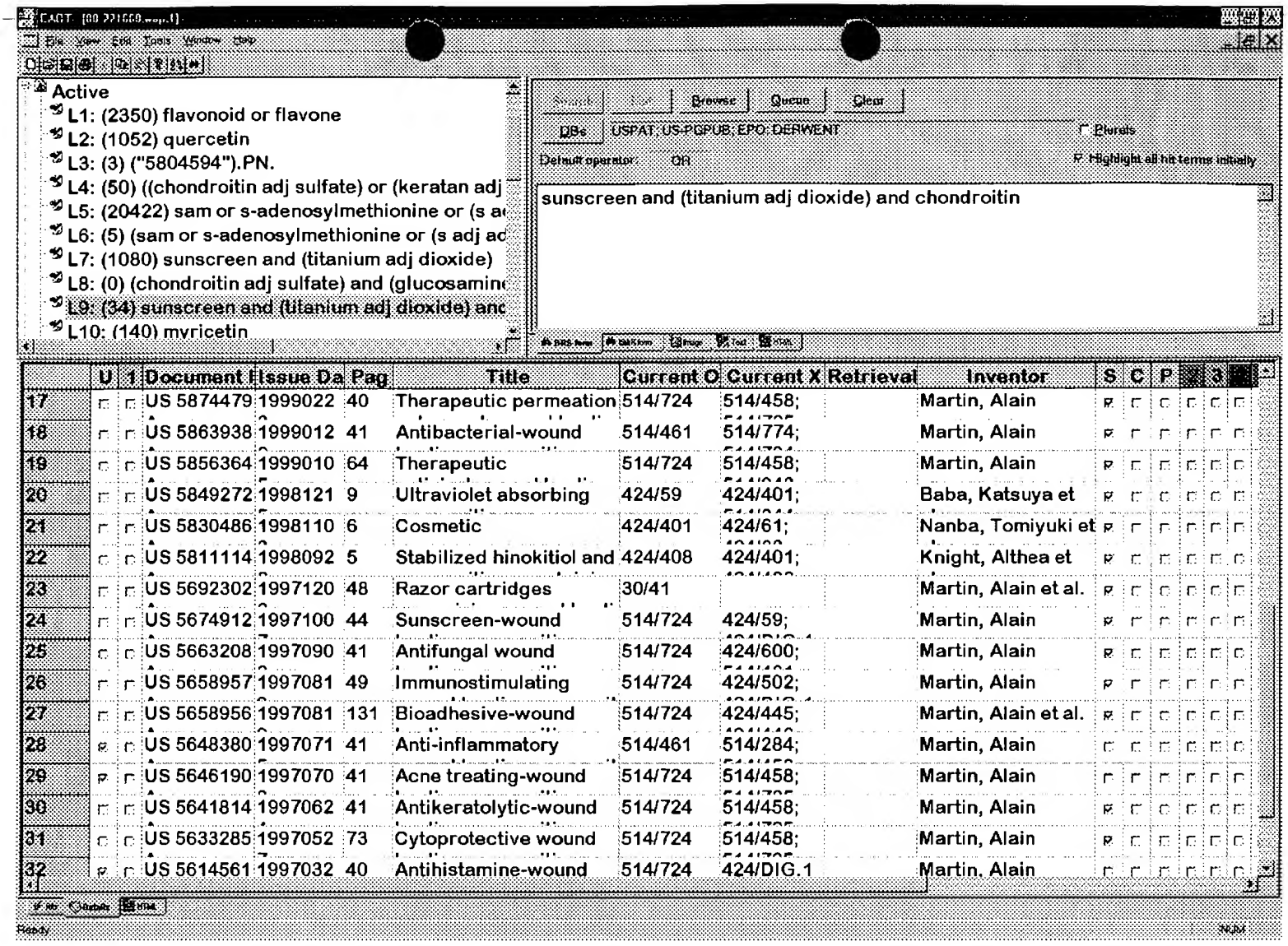
36	☑	☐	US 5916910	1999062	17	Conjugates of	514/423	514/514;		Lai, Ching-San	☐	☐	☐	☐	☐
37	☑	☐	US 5843919	1998120	6	Composition and	514/62	514/560		Burger, John A.	☐	☐	☐	☐	☐
38	☐	☐	US 5840715	1998112	6	Dietary regimen of	514/62	424/523;		Florio, Vito V.	☑	☐	☐	☐	☐
39	☐	☐	US 5804594	1998090	11	Pharmaceutical	514/474	424/417;		Murad, Howard	☑	☐	☐	☐	☐
40	☑	☐	US 5639787	1997061	6	Therapeutic method for	514/474	514/449		Riordan, Neil H. et	☐	☐	☐	☐	☐
41	☑	☐	US 5639740	1997061	5	Topical moisturizing	514/78	514/159;		Crandall, Wilson	☐	☐	☐	☐	☐
42	☑	☐	US 5587363	1996122	10	Aminosugar and	514/54	514/62		Henderson, Robert	☐	☐	☐	☐	☐
43	☑	☐	US 5364845	1994111	11	Glucosamine,	514/54	514/62		Henderson, Robert	☐	☐	☐	☐	☐
44	☑	☐	US 4940751	1990071	9	Wettable silicon	525/54.2	264/331.11		Frances,	☐	☐	☐	☐	☐
45	☑	☐	US 5840715	1998112		Dietary regimen of				FLORIO, VITO V	☐	☐	☐	☐	☐
46	☑	☐	WO	1997061		DIETARY REGIMEN OF				FLORIO, VITO V	☐	☐	☐	☐	☐
47	☑	☐	US 6323319	2001112		Preparation of				ALKAYALI, A	☐	☐	☐	☐	☐
48	☑	☐	WO	2001051		Compositions for				MADERE, S P	☐	☐	☐	☐	☐
49	☑	☐	WO	2001041		Nutraceutical product				HOWARD, L	☐	☐	☐	☐	☐
50	☑	☐	ZA 9905557	2000062		Composition for treating					☐	☐	☐	☐	☐



	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	2	3	4	5
1	☑	☐	US	2002011	28	Compositions and	424/449			Kanios, David	☐	☐	☐	☐	☐	☐	☐
2	☑	☐	US 6221383	2001042		Solubility parameter	424/449	424/448		Miranda, Jesus et	☐	☐	☐	☐	☐	☐	☐
3	☑	☐	US 6024976	2000021		Solubility parameter	424/449	424/448		Miranda, Jesus et	☐	☐	☐	☐	☐	☐	☐
4	☑	☐	US 5656286	1997081		Solubility parameter	424/449	424/448		Miranda, Jesus et	☐	☐	☐	☐	☐	☐	☐
5	☐	☐	US 5446070	1995082	26	Compositions and	514/772.6	424/485;		Mantelle, Juan A.	☑	☐	☐	☐	☐	☐	☐



	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	3
1			US	2002022	17	Transdermal delivery	424/449			Dransfield,				
2			US	2001082	14	Silicone-treated	424/401	424/59;		Kanemaru,				
3			US	2001080	10	Pain reliever and	514/159	424/760;		Barr, Teresa Leigh				
4			US 6348201	2002021	16	External composition	424/401	435/822;		Murata, Katsumi et				
5			US 6342208	2002012	22	Oil-in-water emulsion	424/59	424/400;		Hyldgaard, Jorgen				
6			US 6329343	2001121	7	Bioadhesive	514/23	514/458;		Leung,				
7			US 6294186	2001092	33	Antimicrobial	424/405	424/401;		Beerse, Peter				
8			US 6217998	2001041	8	Method of applying	428/308.8	424/401;		Reinhardt, John G				
9			US 6197318	2001030	24	Composition for	424/401	424/195.18		Abe, Koji et al.				
10			US 6159480	2000121	9	Cosmetic makeup	424/401	424/59;		Tseng, Chung-Ye				
11			US 6080430	2000062	12	Powder coated with	424/490	424/459;		Ogawa, Katsuki et				
12			US 6074652	2000061	19	Oil-in-water emulsified	424/401	514/844;		Ishiwatari,				
13			US 6069169	2000053	10	OXA acids and related	514/532	424/70.1;		Ptchelintsev,				
14			US 5981606	1999110	39	Therapeutic	514/724	514/458;		Martin, Alain				
15			US 5951990	1999091	10	Ascorbyl-phosphoryl-ch	424/401	424/59;		Ptchelintsev,				
16			US 5932229	1999080	9	Oxa diacids and related	424/401	424/443;		Ptchelintsev,				



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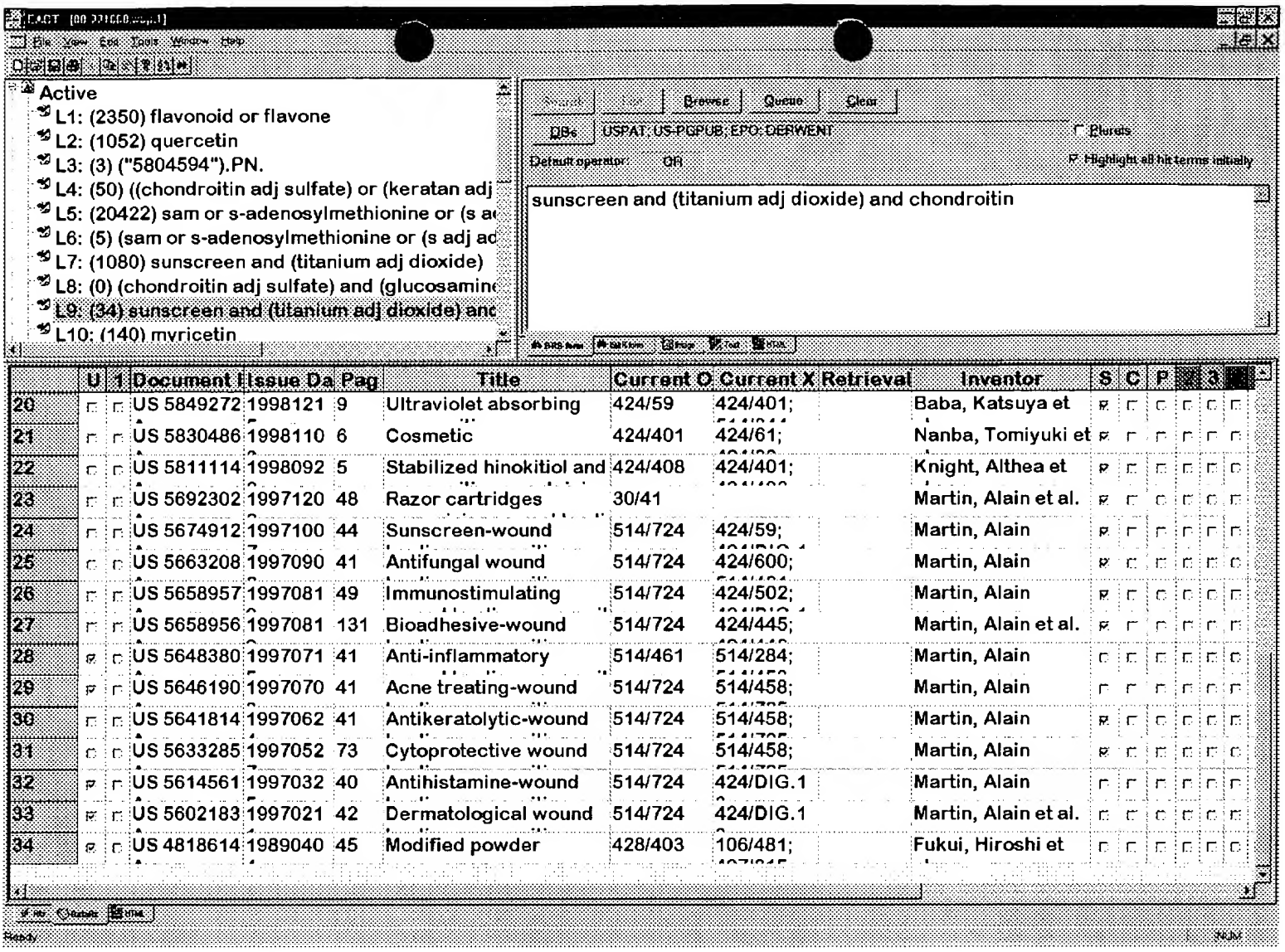
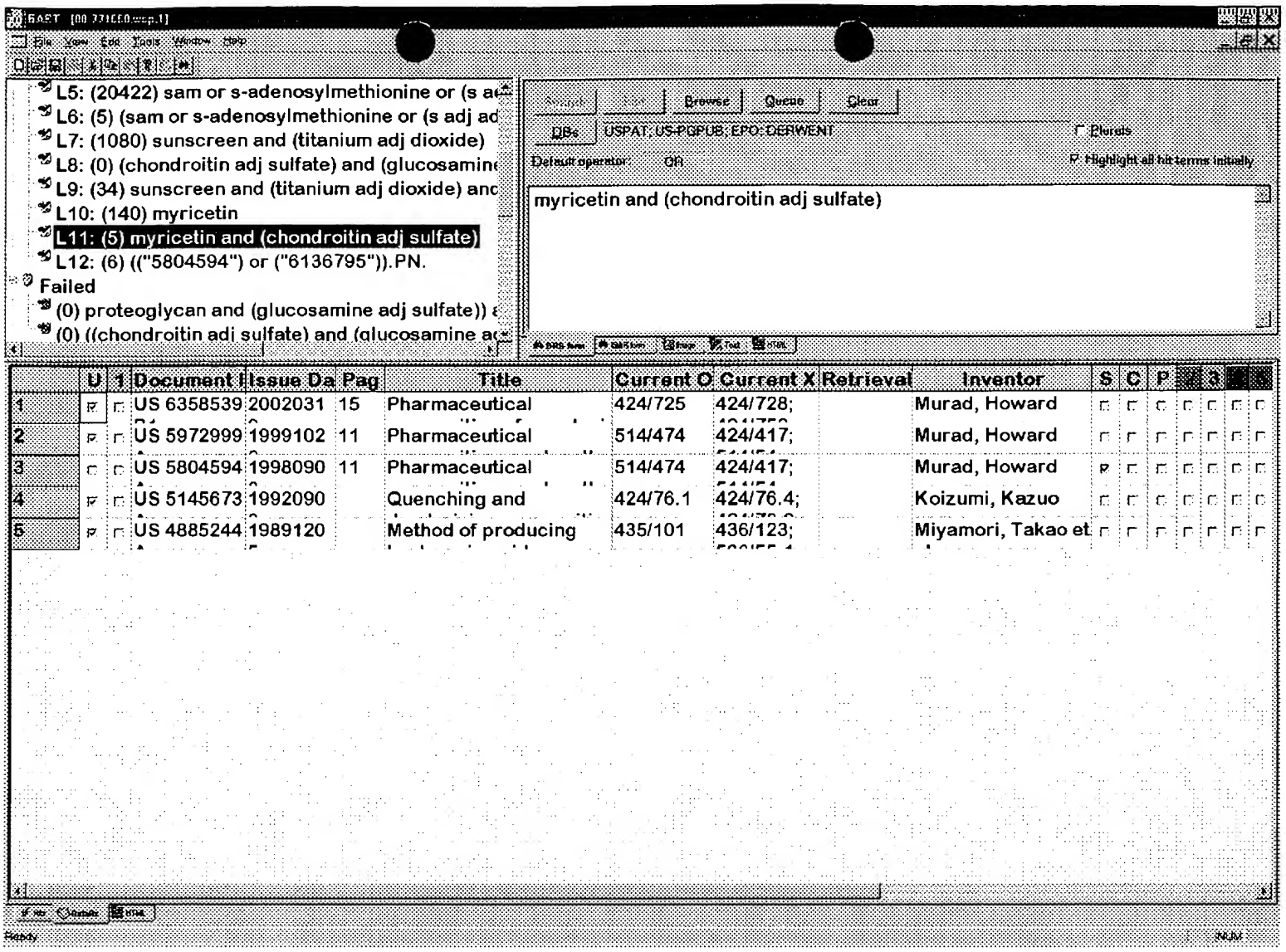
17			US 5874479	1999022	40	Therapeutic permeation	514/724	514/458;		Martin, Alain					
18			US 5863938	1999012	41	Antibacterial-wound	514/461	514/774;		Martin, Alain					
19			US 5856364	1999010	64	Therapeutic	514/724	514/458;		Martin, Alain					
20			US 5849272	1998121	9	Ultraviolet absorbing	424/59	424/401;		Baba, Katsuya et					
21			US 5830486	1998110	6	Cosmetic	424/401	424/61;		Nanba, Tomiyuki et					
22			US 5811114	1998092	5	Stabilized hinokitiol and	424/408	424/401;		Knight, Althea et					
23			US 5692302	1997120	48	Razor cartridges	30/41			Martin, Alain et al.					
24			US 5674912	1997100	44	Sunscreen-wound	514/724	424/59;		Martin, Alain					
25			US 5663208	1997090	41	Antifungal wound	514/724	424/600;		Martin, Alain					
26			US 5658957	1997081	49	Immunostimulating	514/724	424/502;		Martin, Alain					
27			US 5658956	1997081	131	Bioadhesive-wound	514/724	424/445;		Martin, Alain et al.					
28			US 5648380	1997071	41	Anti-inflammatory	514/461	514/284;		Martin, Alain					
29			US 5646190	1997070	41	Acne treating-wound	514/724	514/458;		Martin, Alain					
30			US 5641814	1997062	41	Antikeratolytic-wound	514/724	514/458;		Martin, Alain					
31			US 5633285	1997052	73	Cytoprotective wound	514/724	514/458;		Martin, Alain					
32			US 5614561	1997032	40	Antihistamine-wound	514/724	424/DIG.1		Martin, Alain					



	U	1	Document I	Issue Da	Pag	Title	Current O	Current X	Retrieval	Inventor	S	C	P	3
20	☐	☐	US 5849272	1998121	9	Ultraviolet absorbing	424/59	424/401;		Baba, Katsuya et	☑	☐	☐	☐
21	☐	☐	US 5830486	1998110	6	Cosmetic	424/401	424/61;		Nanba, Tomiyuki et	☑	☐	☐	☐
22	☐	☐	US 5811114	1998092	5	Stabilized hinokitiol and	424/408	424/401;		Knight, Althea et	☑	☐	☐	☐
23	☐	☐	US 5692302	1997120	48	Razor cartridges	30/41			Martin, Alain et al.	☑	☐	☐	☐
24	☐	☐	US 5674912	1997100	44	Sunscreen-wound	514/724	424/59;		Martin, Alain	☑	☐	☐	☐
25	☐	☐	US 5663208	1997090	41	Antifungal wound	514/724	424/600;		Martin, Alain	☑	☐	☐	☐
26	☐	☐	US 5658957	1997081	49	Immunostimulating	514/724	424/502;		Martin, Alain	☑	☐	☐	☐
27	☐	☐	US 5658956	1997081	131	Bioadhesive-wound	514/724	424/445;		Martin, Alain et al.	☑	☐	☐	☐
28	☑	☐	US 5648380	1997071	41	Anti-inflammatory	514/461	514/284;		Martin, Alain	☐	☐	☐	☐
29	☑	☐	US 5646190	1997070	41	Acne treating-wound	514/724	514/458;		Martin, Alain	☐	☐	☐	☐
30	☐	☐	US 5641814	1997062	41	Antikeratolytic-wound	514/724	514/458;		Martin, Alain	☑	☐	☐	☐
31	☐	☐	US 5633285	1997052	73	Cytoprotective wound	514/724	514/458;		Martin, Alain	☑	☐	☐	☐
32	☑	☐	US 5614561	1997032	40	Antihistamine-wound	514/724	424/DIG.1		Martin, Alain	☐	☐	☐	☐
33	☑	☐	US 5602183	1997021	42	Dermatological wound	514/724	424/DIG.1		Martin, Alain et al.	☐	☐	☐	☐
34	☑	☐	US 4818614	1989040	45	Modified powder	428/403	106/481;		Fukui, Hiroshi et	☐	☐	☐	☐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L6: (5) (sam or s-adenosylmethionine or (s adj ad
L7: (1080) sunscreen and (titanium adj dioxide)
L8: (0) (chondroitin adj sulfate) and (glucosamin
L9: (34) sunscreen and (titanium adj dioxide) and
L10: (140) myricetin
L11: (5) myricetin and (chondroitin adj sulfate)
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myricetin and (chondroitin adj sulfate)
U 1 Document I Issue Da Pag Title Current O Current X Retrieval Inventor S C P
1 US 6358539 2002031 15 Pharmaceutical 424/725 424/728; Murad, Howard
2 US 5972999 1999102 11 Pharmaceutical 514/474 424/417; Murad, Howard
3 US 5804594 1998090 11 Pharmaceutical 514/474 424/417; Murad, Howard
4 US 5145673 1992090 Quenching and 424/76.1 424/76.4; Koizumi, Kazuo
5 US 4885244 1989120 Method of producing 435/101 436/123; Miyamori, Takao et
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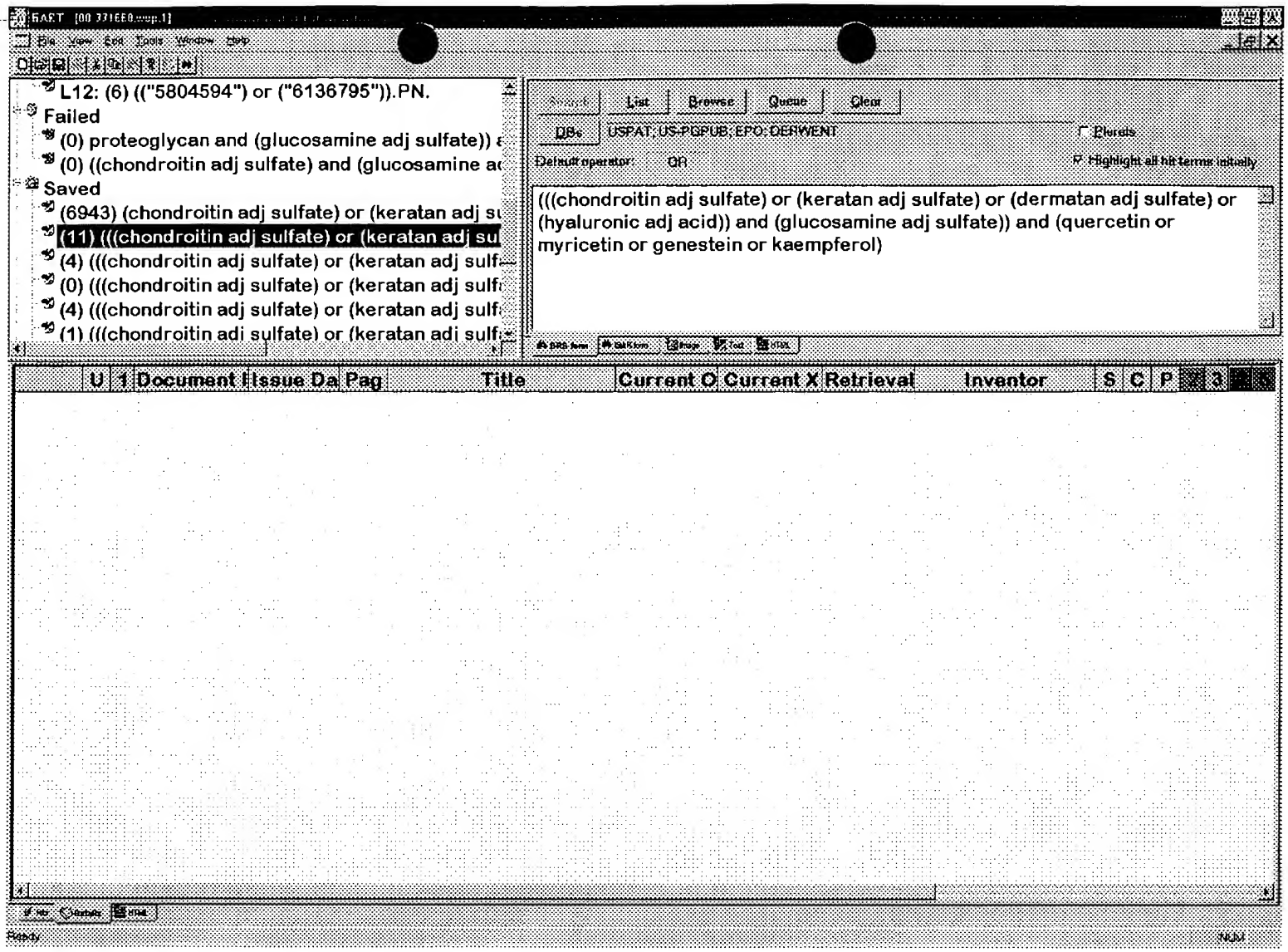
NUM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(((chondroitin adj sulfate) or (keratan adj sulfate) or (dermatan adj sulfate) or (hyaluronic adj acid)) and (glucosamine adj sulfate)) and (quercetin or myricetin or genestein or kaempferol)
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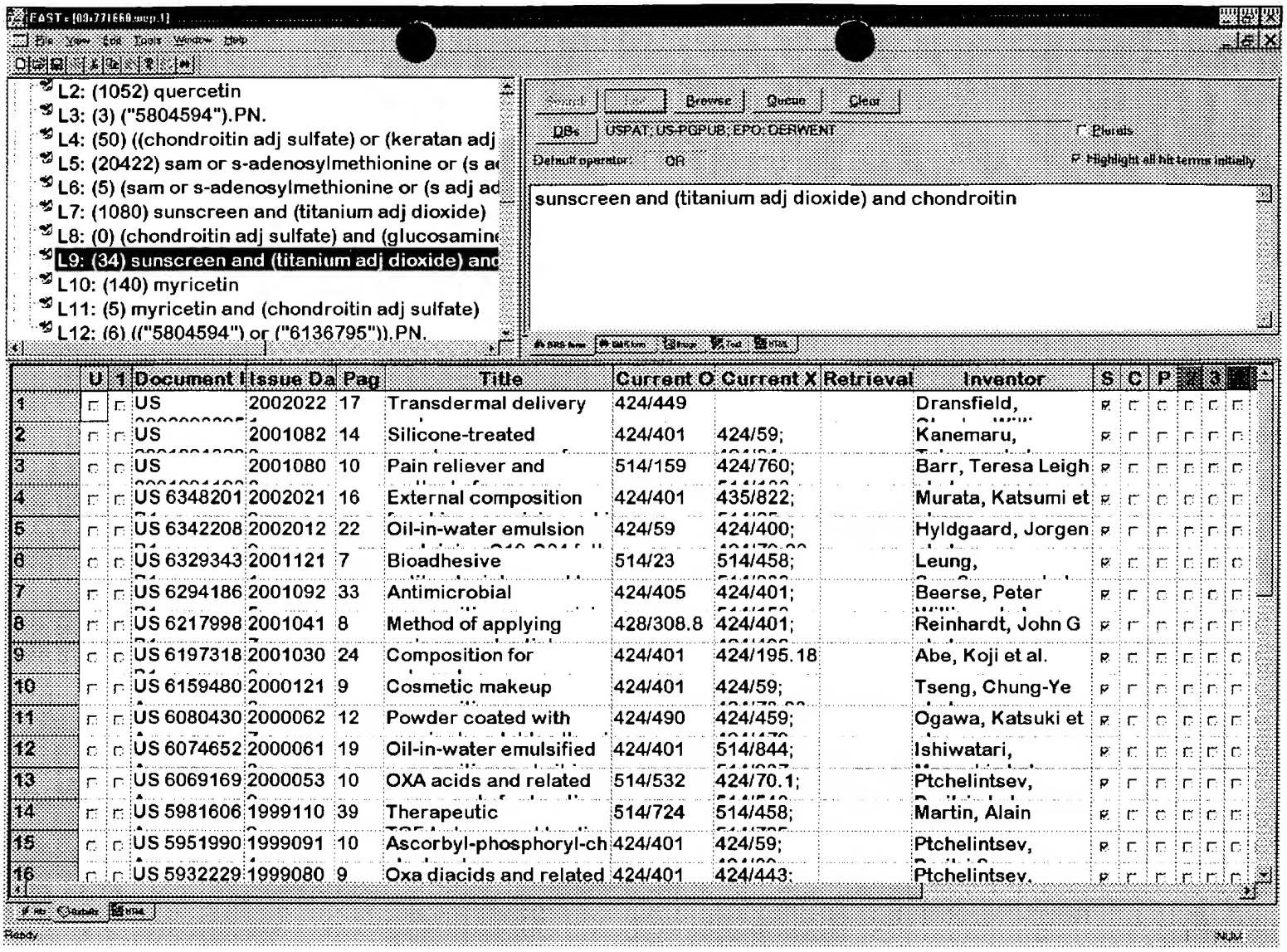

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1	☐	☐	US	2002022	17	Transdermal delivery	424/449			Dransfield,	☑	☐	☐	☐	☐
2	☐	☐	US	2001082	14	Silicone-treated	424/401	424/59;		Kanemaru,	☑	☐	☐	☐	☐
3	☐	☐	US	2001080	10	Pain reliever and	514/159	424/760;		Barr, Teresa Leigh	☑	☐	☐	☐	☐
4	☐	☐	US 6348201	2002021	16	External composition	424/401	435/822;		Murata, Katsumi et	☑	☐	☐	☐	☐
5	☐	☐	US 6342208	2002012	22	Oil-in-water emulsion	424/59	424/400;		Hyldgaard, Jorgen	☑	☐	☐	☐	☐
6	☐	☐	US 6329343	2001121	7	Bioadhesive	514/23	514/458;		Leung,	☑	☐	☐	☐	☐
7	☐	☐	US 6294186	2001092	33	Antimicrobial	424/405	424/401;		Beerse, Peter	☑	☐	☐	☐	☐
8	☐	☐	US 6217998	2001041	8	Method of applying	428/308.8	424/401;		Reinhardt, John G	☑	☐	☐	☐	☐
9	☐	☐	US 6197318	2001030	24	Composition for	424/401	424/195.18		Abe, Koji et al.	☑	☐	☐	☐	☐
10	☐	☐	US 6159480	2000121	9	Cosmetic makeup	424/401	424/59;		Tseng, Chung-Ye	☑	☐	☐	☐	☐
11	☐	☐	US 6080430	2000062	12	Powder coated with	424/490	424/459;		Ogawa, Katsuki et	☑	☐	☐	☐	☐
12	☐	☐	US 6074652	2000061	19	Oil-in-water emulsified	424/401	514/844;		Ishiwatari,	☑	☐	☐	☐	☐
13	☐	☐	US 6069169	2000053	10	OXA acids and related	514/532	424/70.1;		Ptchelintsev,	☑	☐	☐	☐	☐
14	☐	☐	US 5981606	1999110	39	Therapeutic	514/724	514/458;		Martin, Alain	☑	☐	☐	☐	☐
15	☐	☐	US 5951990	1999091	10	Ascorbyl-phosphoryl-ch	424/401	424/59;		Ptchelintsev,	☑	☐	☐	☐	☐
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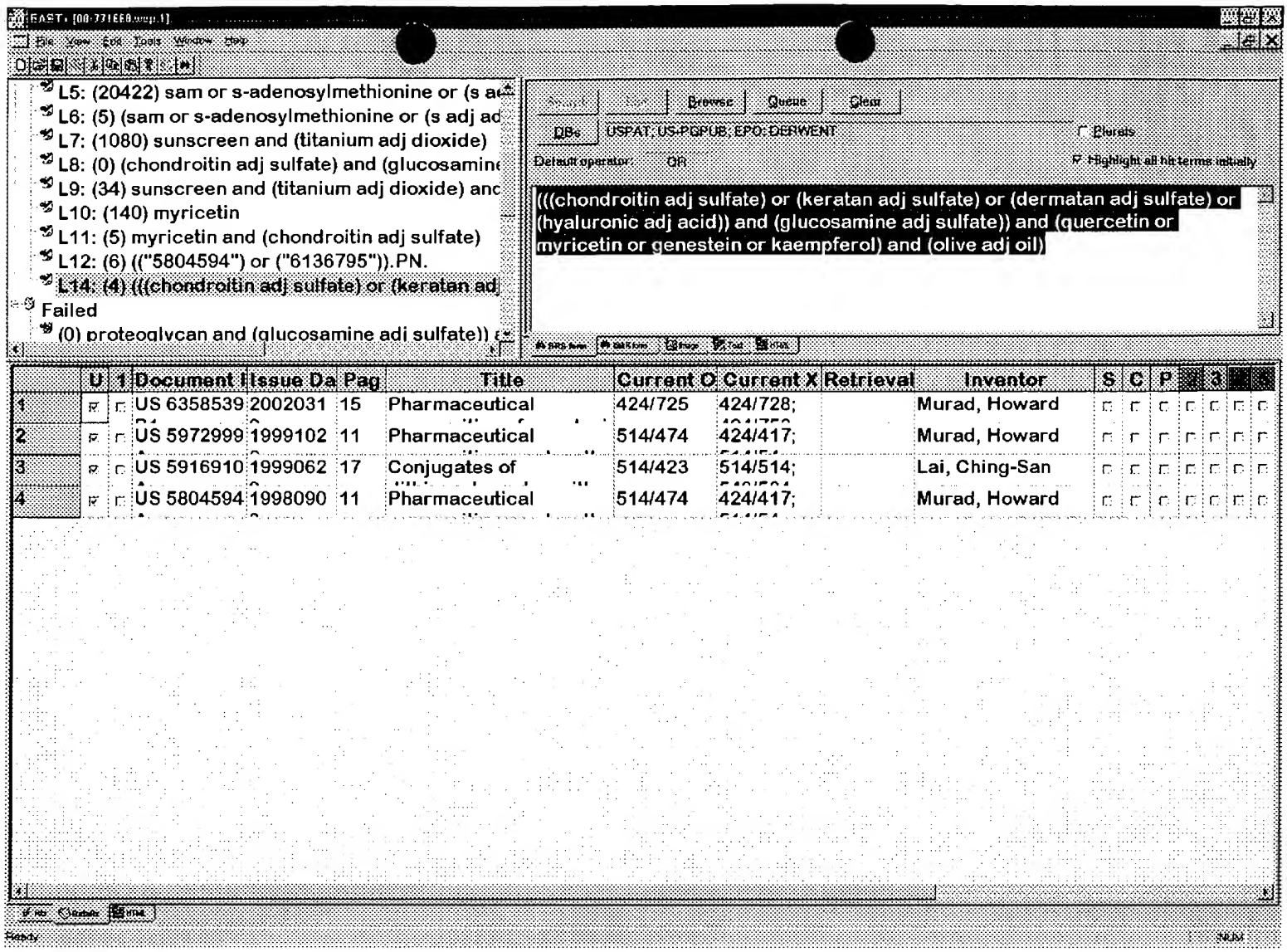
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L6: (5) (sam or s-adenosylmethionine or (s adj ad
L7: (1080) sunscreen and (titanium adj dioxide)
L8: (0) (chondroitin adj sulfate) and (glucosamine
L9: (34) sunscreen and (titanium adj dioxide) and
L10: (140) myricetin
L11: (5) myricetin and (chondroitin adj sulfate)
L12: (6) (("5804594") or ("6136795")).PN.
L14: (4) (((chondroitin adj sulfate) or (keratan ad
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(0) proteoglycan and (glucosamine adj sulfate)) a
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Plurals
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OR
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(((chondroitin adj sulfate) or (keratan adj sulfate) or (dermatan adj sulfate) or (hyaluronic adj acid)) and (glucosamine adj sulfate)) and (quercetin or myricetin or genestein or kaempferol) and (olive adj oil)
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1 US 6358539 2002031 15 Pharmaceutical 424/725 424/728; Murad, Howard
2 US 5972999 1999102 11 Pharmaceutical 514/474 424/417; Murad, Howard
3 US 5916910 1999062 17 Conjugates of 514/423 514/514; Lai, Ching-San
4 US 5804594 1998090 11 Pharmaceutical 514/474 424/417; Murad, Howard
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L11 ANSWER 1 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:511207 BIOSIS
DOCUMENT NUMBER: PREV200100511207
TITLE: (Untitled.
AUTHOR(S): Jawad, A. S. M. (1)
CORPORATE SOURCE: (1) Royal London Hospital, Bancroft Road, London, E1 4DG UK
SOURCE: Annals of the Rheumatic Diseases, (October, 2001) Vol. 60, No. 10, pp. 984. print.
ISSN: 0003-4967.
DOCUMENT TYPE: Letter
LANGUAGE: English
SUMMARY LANGUAGE: English
IT Major Concepts
Pharmacology; Rheumatology (Human Medicine, Medical Sciences)
IT Diseases
knee osteoarthritis: joint disease, management, symptoms
IT Chemicals & Biochemicals
chondroitin sulfate: antiarrhythmic - drug, efficacy, safety; **glucosamine sulfate**: antiarrhythmic - drug, efficacy, safety; non-steroidal antiinflammatory drugs
IT Alternate Indexing
Osteoarthritis, Knee (MeSH)
RN 9007-28-7 (**CHONDROITIN SULFATE**)
29031-19-4 (**GLUCOSAMINE SULFATE**)

L11 ANSWER 2 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:511206 BIOSIS
DOCUMENT NUMBER: PREV200100511206
TITLE: Management of knee osteoarthritis.
AUTHOR(S): Leeb, B. F. (1)
CORPORATE SOURCE: (1) Lower Austrian Centre for Rheumatology, Stockerau Hospital, Landstrasse 18, A-2000, Stockerau: leeb.khstockerau@aon.at Austria
SOURCE: Annals of the Rheumatic Diseases, (October, 2001) Vol. 60, No. 10, pp. 984. print.
ISSN: 0003-4967.
DOCUMENT TYPE: Letter
LANGUAGE: English
SUMMARY LANGUAGE: English
IT Major Concepts
Pharmacology; Rheumatology (Human Medicine, Medical Sciences)
IT Diseases
knee osteoarthritis: joint disease, management
IT Chemicals & Biochemicals
chondroitin sulfate: antiarrhythmic - drug; cyclooxygenase-2 inhibitors; **glucosamine sulfate**: antiarrhythmic - drug; non-steroidal antiinflammatory drugs; symptomatic slow acting drugs
IT Alternate Indexing
Osteoarthritis, Knee (MeSH)
RN 9007-28-7 (**CHONDROITIN SULFATE**)
29031-19-4 (**GLUCOSAMINE SULFATE**)

L11 ANSWER 3 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:366050 BIOSIS
DOCUMENT NUMBER: PREV200100366050
TITLE: Glucosamine and **chondroitin sulfates** in the treatment of osteoarthritis: A survey.
AUTHOR(S): de los Reyes, Gerlie C. (1); Koda, Robert T. (1); Lien, Eric J. (1)
CORPORATE SOURCE: (1) Department of Pharmaceutical Sciences, School of Pharmacy, University of Southern California, Los Angeles,

CA, 90089 USA
SOURCE: Jucker, Ernst. Progress in Drug Research, (2000) Vol. 55, pp. 81-103. Progress in Drug Research. print. Publisher: Birkhaeuser Publishing Ltd. CH-4010, Basel, Switzerland. ISSN: 0071-786X. ISBN: 3-7643-6193-X (cloth).
DOCUMENT TYPE: Book
LANGUAGE: English
SUMMARY LANGUAGE: English
TI Glucosamine and **chondroitin sulfates** in the treatment of osteoarthritis: A survey.
IT Major Concepts
Skeletal System (Movement and Support); Pharmacology
IT Diseases
osteoarthritis: joint disease
IT Chemicals & Biochemicals
chondroitin sulfate: adverse effect, antiarthritic - drug, toxicity; **glucosamine sulfate**: adverse effect, antiarthritic - drug, toxicity
IT Alternate Indexing
Osteoarthritis (MeSH)
RN 9007-28-7 (**CHONDROITIN SULFATE**)
29031-19-4 (**GLUCOSAMINE SULFATE**)

L11 ANSWER 4 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:366048 BIOSIS
DOCUMENT NUMBER: PREV200100366048
TITLE: Progress in Drug Research.
AUTHOR(S): Jucker, Ernst (1)
CORPORATE SOURCE: (1) Steinweg 28, CH-4107, Ettingen: jucker.pdr@bluewin.ch Switzerland
SOURCE: Jucker, Ernst. Progress in Drug Research, (2000) Vol. 55, pp. i-viii, 1-334. Progress in Drug Research. print. Publisher: Birkhaeuser Publishing Ltd. CH-4010, Basel, Switzerland. ISSN: 0071-786X. ISBN: 3-7643-6193-X (cloth).
DOCUMENT TYPE: Book
LANGUAGE: English
SUMMARY LANGUAGE: English
AB This volume contains 7 separately authored articles on the latest information in drug research. It also contains a title index and an author and paper index for Volumes 1-55 of this series. A subject index and bibliographical references are included.
IT . . .
disease/male, urologic disease
IT Chemicals & Biochemicals
androgen receptor; antineoplastic agent; antiviral agent; cardiotonic agent: cardiovascular agent, quantitative structure-activity relationships; **chondroitin sulfate**: antiarthritic - drug; **glucosamine sulfate**: antiarthritic - drug; morphine: growth regulator
IT Alternate Indexing
Hepatitis C (MeSH); Osteoarthritis (MeSH); Prostatic Neoplasms (MeSH)
RN 9007-28-7 (**CHONDROITIN SULFATE**)
29031-19-4 (**GLUCOSAMINE SULFATE**)
57-27-2 (MORPHINE)

L11 ANSWER 5 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:270702 BIOSIS
DOCUMENT NUMBER: PREV200100270702
TITLE: The effect of **chondroitin sulfate** on the production of nitric oxide by human arthrosic chondrocytes.

Original Title: Efecto del condroitin sulfato sobre la produccion de oxido nitrico por los condrocitos humanos artrosicos..

AUTHOR(S): Maneiro, Emilia; Fernandez Sueiro, Jose L.; Lema, Beatriz; de Toro, Francisco J.; Galdo, Fausto; Blanco, Francisco J. (1)

CORPORATE SOURCE: (1) Servicio de Reumatologia, Unidad de Investigacion, Hospital Juan Canalejo, 15006, La Coruna: Francisco_Blanco@canalejo.org Spain

SOURCE: Revista Espanola de Reumatologia, (Enero, 2001) Vol. 28, No. 1, pp. 12-17. print.
ISSN: 0304-4815.

DOCUMENT TYPE: Article
LANGUAGE: Spanish
SUMMARY LANGUAGE: English; Spanish

AB Introduction: Arthrosic cartilage and in vitro chondrocytes release more nitric oxide (NO) than cartilage and normal chondrocytes. The NO probably has a pernicious effect on the articular cartilage. At present some components of the extracellular matric (CEM) of the cartilage are used for the treatment of arthrosis. Aim: To study the effect of different CEM on the production of NO by human arthrosic chondrocytes. Material and methods: The chondrocytes were isolated from the femoral heads of the patients submitted to prosthetic surgery. The CEM studied were: **chondroitin sulfate**, type II collagen, **glucosamine sulfate** and glucosamine chlorhydrate. The bottom of the dish was covered with the drug studied. The supernatant was later withdrawn and the cells and the LK-1 were added. The supernatant was collected at 72 hours and the NO quantified. Results: Of all the CEM studied, only **chondroitin sulfate** (CS) reduced the NO synthesis induced by IL-1, TNF and LPS. The NO levels induced by IL-1 decreased 21% using CS concentrations of 150 and 200 mug/ml. The CS concentration of 200 mug/ml reduced the effect of TNF 32% and the concentration of 150 mug/ml decreased the NO level induced by LPS by 31%. Conclusion: In this in vitro model CS inhibited NO synthesis.

TI The effect of **chondroitin sulfate** on the production of nitric oxide by human arthrosic chondrocytes.
Original Title: Efecto del condroitin sulfato sobre la produccion de. . .

AB. . . methods: The chondrocytes were isolated from the femoral heads of the patients submitted to prosthetic surgery. The CEM studied were: **chondroitin sulfate**, type II collagen, **glucosamine sulfate** and glucosamine chlorhydrate. The bottom of the dish was covered with the drug studied. The supernatant was later withdrawn and. . . were added. The supernatant was collected at 72 hours and the NO quantified. Results: Of all the CEM studied, only **chondroitin sulfate** (CS) reduced the NO synthesis induced by IL-1, TNF and LPS. The NO levels induced by IL-1 decreased 21% using. . .

IT . . .
disease, joint disease

IT Chemicals & Biochemicals
chrondroitin sulfate: antiarthritic - drug; extracellular matrix components; glucosamine chlorhydrate: antiarthritic - drug; **glucosamine sulfate**: antiarthritic - drug; interleukin-1; lipopolysaccharide; nitric oxide; tumor necrosis factor; type II collagen: antiarthritic - drug

RN 29031-19-4 (**GLUCOSAMINE SULFATE**)
10102-43-9 (NITRIC OXIDE)

L11 ANSWER 6 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:253178 BIOSIS
DOCUMENT NUMBER: PREV200100253178
TITLE: Dietary regimen of nutritional supplements for relief of

symptoms of arthritis.
AUTHOR(S): Florio, Vito V. (1)
CORPORATE SOURCE: (1) Tamarac, FL USA
ASSIGNEE: Omni Nutraceuticals, Inc, Los Angeles, CA, USA
PATENT INFORMATION: US 6136795 October 24, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 24, 2000) Vol. 1239, No. 4, pp. No Pagination. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
AB This invention is directed to a dietary regimen and a unique combination of nutritional supplements and a method. More specifically, this invention is directed to a unique combination of nutritional supplements which provides symptomatic relief from arthritis. The unique combination of nutritional supplements of this invention is believed to function by both increasing the available (effective blood level) of anti-inflammatory agents and promotion of the healing/regenerative process in the effected joints, thus, producing unexpected and lasting symptomatic relief from the debilitating effects of both osteoarthritis and rheumatoid arthritis. The essential nutritional supplements of the dietary regimen of this invention are as follows: (a) gamma linolenic acid (unrefined), hereinafter "GLA" (b) a mixture of eicosapentaenoic acid and docosahexaneoic acid, hereinafter collectively "EPA" (c) a mixture of **chondroitin sulfate**, N-acetyl **glucosamine sulfate**, **glucosamine sulfate** and manganese aspartate, hereinafter collectively "CHONDROX" The regimen is adjusted based upon the weight of the individual, and once symptomatic relief is achieved, the individual remains essentially free from the debilitating effects of arthritis so as long the daily regimen is faithfully followed.
AB. . . acid (unrefined), hereinafter "GLA" (b) a mixture of eicosapentaenoic acid and docosahexaneoic acid, hereinafter collectively "EPA" (c) a mixture of **chondroitin sulfate**, N-acetyl **glucosamine sulfate**, **glucosamine sulfate** and manganese aspartate, hereinafter collectively "CHONDROX" The regimen is adjusted based upon the weight of the individual, and once symptomatic. . .
IT . . .
Rheumatology (Human Medicine, Medical Sciences); Methods and Techniques; Pharmacology
IT Diseases
arthritis: joint disease, treatment
IT Chemicals & Biochemicals
N-acetyl **glucosamine sulfate**; anti-inflammatory agents; **chondroitin sulfate**; docosahexaenoic acid; eicosapentaenoic acid; gamma linolenic acid; **glucosamine sulfate**; manganese aspartate; nutritional supplements
IT Alternate Indexing
Arthritis (MeSH)
RN 9007-28-7 (**CHONDROITIN SULFATE**)
6217-54-5Q (DOCOSAHEXAENOIC ACID)
25167-62-8Q (DOCOSAHEXAENOIC ACID)
32839-18-2Q (DOCOSAHEXAENOIC ACID)
10417-94-4Q (EICOSAPENTAENOIC ACID)
25378-27-2Q (EICOSAPENTAENOIC ACID)
32839-30-8Q (EICOSAPENTAENOIC ACID)
506-26-3 (GAMMA LINOLENIC ACID)
29031-19-4 (**GLUCOSAMINE SULFATE**)

L11 ANSWER 7 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:508880 BIOSIS
DOCUMENT NUMBER: PREV200000508880
TITLE: **Glucosamine sulfate** and

chondroitin sulfates for degenerative joint disease.

AUTHOR(S): Debi, R. (1); Robinson, D. (1); Agar, G. (1); Halperin, N. (1)

CORPORATE SOURCE: (1) Orthopedic Dept., Assaf Harofeh Medical Center, Zrifin Israel

SOURCE: Harefuah, (March 15, 2000) Vol. 138, No. 6, pp. 451-453, 518. print.
ISSN: 0017-7768.

DOCUMENT TYPE: Article

LANGUAGE: Hebrew

SUMMARY LANGUAGE: English; Hebrew

AB Osteoarthritis results from progressive catabolic loss of cartilage proteoglycans due to imbalance between synthesis and degradation. The availability of glucosamine, an intermediate in mucopolysaccharide synthesis, can be rate-limiting for proteoglycan production in cartilage tissue culture. 57 patients suffering from osteoarthritis of the knee were randomized into a group treated for 4 weeks with daily IV **glucosamine sulfate** (GS) together with 800 mg **chondroitin sulfate**, and a placebo group. Knee pain at rest, on movement and on palpation, as well as range of knee motion were then recorded. In the GS group, there was significant reduction of clinical symptoms ($p<0.01$), but no significant reduction in the placebo group. Physicians' assessment of tenderness and range of motion were significantly in favor of the GS group ($p<0.01$). In those treated with glycosamine there were no adverse reactions and no changes in laboratory blood tests. We conclude that GS can be considered the drug of choice for prolonged treatment of osteoarthritis.

TI **Glucosamine sulfate** and **chondroitin sulfates** for degenerative joint disease.

AB. . . 57 patients suffering from osteoarthritis of the knee were randomized into a group treated for 4 weeks with daily IV **glucosamine sulfate** (GS) together with 800 mg **chondroitin sulfate**, and a placebo group. Knee pain at rest, on movement and on palpation, as well as range of knee motion. . .

IT . . .
skeletal system

IT Diseases
degenerative joint disease; osteoarthritis: joint disease

IT Chemicals & Biochemicals
cartilage proteoglycans: catabolic loss, degeneration, synthesis; **chondroitin sulfate**: antiarthritic - drug; glucosamine: mucopolysaccharide intermediate; **glucosamine sulfate**: antiarthritic - drug; glycosamine: antiarthritic - drug; mucopolysaccharide: synthesis

IT Alternate Indexing
Osteoarthritis (MeSH)

RN 9007-28-7 (**CHONDROITIN SULFATE**)
3416-24-8 (GLUCOSAMINE)
29031-19-4 (**GLUCOSAMINE SULFATE**)

L11 ANSWER 8 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1993:255622 BIOSIS

DOCUMENT NUMBER: PREV199395134797

TITLE: In-vitro evaluation of drugs proposed as chondroprotective agents.

AUTHOR(S): Bassleer, C. (1); Henrotin, Y.; Franchimont, P.

CORPORATE SOURCE: (1) Lab. of Radioimmunology, CHU, B23-4000 Liege Belgium

SOURCE: International Journal of Tissue Reactions, (1992) Vol. 14, No. 5, pp. 231-241.
ISSN: 0250-0868.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Three proposed chondroprotective agents (CP), namely **glucosamine sulfate** (GAS), **chondroitin sulfate** (CS) and glycosaminoglycan-peptide complex (GP-C), were tested on differentiated human articular chondrocytes cultured in clusters. Chondrocyte productions of proteoglycans (PG), type II collagen (coll. II) and prostaglandin E-2 (PGE-2) were established by specific radioimmunoassays applied to the culture medium (CM) and in chondrocyte clusters (CC). Collagenolytic activity was assayed in CM. DNA synthesis, studied by measuring 3H-thymidine incorporation, was unaffected by CS and GAS. GP-C, at low concentration, stimulated DNA synthesis. GP-C, at higher doses, induced a high increase in PG and coll. II productions. GAS and CS induced a stimulatory effect limited to PG production. None of the CP tested here affected the basal PGE-2 production by human chondrocytes.
AB Three proposed chondroprotective agents (CP), namely **glucosamine sulfate** (GAS), **chondroitin sulfate** (CS) and glycosaminoglycan-peptide complex (GP-C), were tested on differentiated human articular chondrocytes cultured in clusters. Chondrocyte productions of proteoglycans (PG),. . .
IT . . .
and Molecular Biophysics; Cell Biology; Endocrine System (Chemical Coordination and Homeostasis); Metabolism; Methods and Techniques; Pharmacology
IT Chemicals & Biochemicals
GLUCOSAMINE SULFATE; **CHONDROITIN SULFATE**
IT Miscellaneous Descriptors
CHONDROITIN SULFATE; **GLUCOSAMINE SULFATE**; GLYCOSAMINOGLYCAN-PEPTIDE COMPLEX; METABOLIC-DRUG; PROSTAGLANDIN E-2 PRODUCTION; TISSUE CULTURE
RN 29031-19-4 (**GLUCOSAMINE SULFATE**)
9007-28-7 (**CHONDROITIN SULFATE**)

L11 ANSWER 9 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1991:219045 BIOSIS
DOCUMENT NUMBER: BR40:104880
TITLE: INOSITOL-1 4 5-TRISPHOSPHATE-GATED CALCIUM CHANNELS IN CEREBELLUM AND SMOOTH MUSCLE EFFECTS OF POLYANIONS.
AUTHOR(S): WATRAS J; BEZPROZVANNY I; ONDRIAS K; EHRLICH B E
CORPORATE SOURCE: DEP., UNIV. CONN., FARMINGTON, CONN. 06030.
SOURCE: THIRTY-FIFTH ANNUAL MEETING OF THE BIOPHYSICAL SOCIETY, SAN FRANCISCO, CALIFORNIA, USA, FEBRUARY 24-28, 1991. BIOPHYS J, (1991) 59 (2 PART 2), 601A.
CODEN: BIOJAU. ISSN: 0006-3495.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English
IT Miscellaneous Descriptors
ABSTRACT AORTA SKELETAL MUSCLE HEPARIN DE-N-SULFATE HEPARIN **CHONDROITIN SULFATES GLUCOSAMINE SULFATES** POLYGALACTURONIC ACID
RN 7440-70-2 (CALCIUM)
9005-49-6 (HEPARIN)
9007-28-7 (**CHONDROITIN SULFATES**)
29031-19-4D (**GLUCOSAMINE SULFATES**)
88269-39-0 (INOSITOL-1 4 5-TRISPHOSPHATE)
9046-38-2Q, 25249-06-3Q (POLYGALACTURONIC ACID)

L11 ANSWER 10 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1983:216946 BIOSIS
DOCUMENT NUMBER: BA75:66946
TITLE: THE INFLUENCE OF HEXOSAMINE DERIVATIVES ON MESENCHYMAL METABOLISM IN FETAL BONE EXPLANTS STUDIES IN-VITRO.
AUTHOR(S): KARZEL K; LEE K J

CORPORATE SOURCE: INST. FUER PHARMAKOL. UND TOXIKOL. DER UNIV. BONN, REUTERSTRASSE 2B, D-5300 BONN 1.
SOURCE: Z RHEUMATOL, (1982) 41 (5), 212-218.
CODEN: ZRHMBQ. ISSN: 0340-1855.
FILE SEGMENT: BA; OLD
LANGUAGE: German

AB Effects of hexosamine derivatives, glucuronic acid, **chondroitin sulfate** and oxyphenbutazone on growth and glycosaminoglycan metabolism of murine fetal bone explants cultured for 6 days in vitro were studied. Glucosamine hydrochloride, glucosamine hydroiodide and **glucosamine sulfate** (at concentrations of 100 .mu.g/ml) caused a significant increase in the growth of the explants; this effect was not due to an increase in cell multiplication, as can be concluded from the DNA content of the explants, but rather to an increase in the glycosaminoglycans in the extracellular cartilage matrix. The 3 glucosamine salts also induced an increase in the secretion of glycosaminoglycans from the surface of the explants into the culture medium. N-acetylgalactosamine, sodium glucuronide and **chondroitin sulfate** showed lesser or nonsignificant effects as compared to the glucosamine derivatives or the controls. Galactosamine hydrochloride (100 .mu.g/ml) exerted inhibitory actions on the bone explants. Oxyphenbutazone (10 .mu.g/ml) also led to a significant inhibition of the growth and glycosaminoglycan metabolism of the explants without influencing (at this concentration) their DNA content. In the treatment of [human] degenerative joint diseases, nonsteroidal antiphlogistics acting similarly to oxyphenbutazone should be used, if at all as cautiously as possible; drugs with the type of action observed in the 3 glucosamine derivatives could be expected to exert a beneficial effect.

AB Effects of hexosamine derivatives, glucuronic acid, **chondroitin sulfate** and oxyphenbutazone on growth and glycosaminoglycan metabolism of murine fetal bone explants cultured for 6 days in vitro were studied. Glucosamine hydrochloride, glucosamine hydroiodide and **glucosamine sulfate** (at concentrations of 100 .mu.g/ml) caused a significant increase in the growth of the explants; this effect was not due. . . increase in the secretion of glycosaminoglycans from the surface of the explants into the culture medium. N-acetylgalactosamine, sodium glucuronide and **chondroitin sulfate** showed lesser or nonsignificant effects as compared to the glucosamine derivatives or the controls. Galactosamine hydrochloride (100 .mu.g/ml) exerted inhibitory. . .

IT Miscellaneous Descriptors
MOUSE HUMAN OXYPHENYL BUTAZONE ANTIINFLAMMATORY GLUCURONIC-ACID **CHONDROITIN SULFATE** GLUCOSAMINE HYDRO CHLORIDE GLUCOSAMINE HYDRO IODIDE **GLUCOSAMINE SULFATE** N ACETYL GALACTOSAMINE SODIUM GLUCURONIDE METABOLIC-DRUG NONSTEROIDAL ANTI PHLOGISTICS DEGENERATIVE JOINT DISEASE GLYCOSAMINO GLYCAN METABOLISM DNA GROWTH

RN 66-84-2 (GLUCOSAMINE HYDRO CHLORIDE)
129-20-4 (OXYPHENYL BUTAZONE)
3416-24-8 (GLUCOSAMINE)
7440-23-5 (SODIUM)
9007-28-7 (**CHONDROITIN SULFATE**)
29031-19-4 (**GLUCOSAMINE SULFATE**)
576-37-4Q, 6556-12-3Q (GLUCURONIC-ACID)
1811-31-0Q, 31022-50-1Q (N ACETYL GALACTOSAMINE)

L11 ANSWER 11 OF 27 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1981:246525 BIOSIS
DOCUMENT NUMBER: BA72:31509
TITLE: CHARACTERIZATION OF EPIDERMAL GLYCOSAMINO GLYCANS SYNTHESIZED IN ORGAN CULTURE.
AUTHOR(S): KING I A
CORPORATE SOURCE: MRC UNIT EXP. PATHOL. SKIN., MED. SCH., BIRMINGHAM, B15

2TJ.
SOURCE: BIOCHIM BIOPHYS ACTA, (1981) 674 (1), 87-95.
CODEN: BBACAQ. ISSN: 0006-3002.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Cellulose acetate electrophoresis with specific enzymic and chemical degradation procedures indicated that **hyaluronic acid** (83%) and heparan sulfate (14%) were the major glycosaminoglycans synthesized by the epidermis when pig ear skin slices were cultured in the presence of D-[3H]glucosamine and 35SO42-, 81% and 50%, respectively, of the total amount of each epidermal glycosaminoglycan was extracellular. Total epidermal glycosaminoglycan synthesis decreased by 50% after 5 days in culture. When the epidermis was cultured in the absence of the dermis the synthesis of **hyaluronic acid** was reduced considerably. The synthesis of sulfated glycosaminoglycans was essentially unaffected by the absence of the dermis. All-trans-retinoic acid 10-5 M stimulated the synthesis of **hyaluronic acid** and to a lesser extent sulfated glycosaminoglycans, whether the dermis was absent or present during culture. **Hyaluronic acid** may play an important role in some aspects of epidermal differentiation.
AB Cellulose acetate electrophoresis with specific enzymic and chemical degradation procedures indicated that **hyaluronic acid** (83%) and heparan sulfate (14%) were the major glycosaminoglycans synthesized by the epidermis when pig ear skin slices were cultured. . . 50% after 5 days in culture. When the epidermis was cultured in the absence of the dermis the synthesis of **hyaluronic acid** was reduced considerably. The synthesis of sulfated glycosaminoglycans was essentially unaffected by the absence of the dermis. All-trans-retinoic acid 10-5 M stimulated the synthesis of **hyaluronic acid** and to a lesser extent sulfated glycosaminoglycans, whether the dermis was absent or present during culture. **Hyaluronic acid** may play an important role in some aspects of epidermal differentiation.
IT Miscellaneous Descriptors
PIG D **GLUCOSAMINE SULFATE** ALL TRANS RETINOIC-ACID METABOLIC-DRUG EPIDERMAL DIFFERENTIATION **HYALURONIC-ACID** HEPARAN SULFATE
RN 302-79-4 (ALL TRANS RETINOIC-ACID)
3416-24-8 (D GLUCOSAMINE)
9004-61-9 (**HYALURONIC-ACID**)
9050-30-0 (HEPARAN SULFATE)
14808-79-8 (SULFATE)

L11 ANSWER 12 OF 27 MEDLINE
ACCESSION NUMBER: 2002165123 IN-PROCESS
DOCUMENT NUMBER: 21895052 PubMed ID: 11896744
TITLE: Sulfur in human nutrition and applications in medicine.
AUTHOR: Parcell Stephen
CORPORATE SOURCE: ND candidate, 2002, Bastyr University, Seattle, WA; Research Associate, American Institute for Biosocial and Medical Research (AIBMR) in Tacoma, WA; Correspondence address: 6210 35th Ave NE, Seattle, WA 98115; e-mail:. steveparcell@attbi.com
SOURCE: ALTERNATIVE MEDICINE REVIEW, (2002 Feb) 7 (1) 22-44.
Journal code: 9705340. ISSN: 1089-5159.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: IN-PROCESS; NONINDEXED; K
ENTRY DATE: Entered STN: 20020319
Last Updated on STN: 20020319
AB Because the role of elemental sulfur in human nutrition has not been studied extensively, it is the purpose of this article to emphasize the importance of this element in humans and discuss the therapeutic

applications of sulfur compounds in medicine. Sulfur is the sixth most abundant macromineral in breast milk and the third most abundant mineral based on percentage of total body weight. The sulfur-containing amino acids (SAAs) are methionine, cysteine, cystine, homocysteine, homocystine, and taurine. Dietary SAA analysis and protein supplementation may be indicated for vegan athletes, children, or patients with HIV, because of an increased risk for SAA deficiency in these groups. Methylsulfonylmethane (MSM), a volatile component in the sulfur cycle, is another source of sulfur found in the human diet. Increases in serum sulfate may explain some of the therapeutic effects of MSM, DMSO, and **glucosamine sulfate**. Organic sulfur, as SAAs, can be used to increase synthesis of S-adenosylmethionine (SAMe), glutathione (GSH), taurine, and N-acetylcysteine (NAC). MSM may be effective for the treatment of allergy, pain syndromes, athletic injuries, and bladder disorders. Other sulfur compounds such as SAMe, dimethylsulfoxide (DMSO), taurine, glucosamine or **chondroitin sulfate**, and reduced glutathione may also have clinical applications in the treatment of a number of conditions such as depression, fibromyalgia, arthritis, interstitial cystitis, athletic injuries, congestive heart failure, diabetes, cancer, and AIDS. Dosages, mechanisms of action, and rationales for use are discussed. The low toxicological profiles of these sulfur compounds, combined with promising therapeutic effects, warrant continued human clinical trails.

AB . . . found in the human diet. Increases in serum sulfate may explain some of the therapeutic effects of MSM, DMSO, and **glucosamine sulfate**. Organic sulfur, as SAAs, can be used to increase synthesis of S-adenosylmethionine (SAMe), glutathione (GSH), taurine, and N-acetylcysteine (NAC). MSM. . . of allergy, pain syndromes, athletic injuries, and bladder disorders. Other sulfur compounds such as SAMe, dimethylsulfoxide (DMSO), taurine, glucosamine or **chondroitin sulfate**, and reduced glutathione may also have clinical applications in the treatment of a number of conditions such as depression, fibromyalgia,. . .

L11 ANSWER 13 OF 27 MEDLINE

ACCESSION NUMBER: 2001644508 MEDLINE
DOCUMENT NUMBER: 21064116 PubMed ID: 11123100
TITLE: Evidence of nutriceutical effectiveness in the treatment of osteoarthritis.
AUTHOR: Reginster J Y; Gillot V; Bruyere O; Henrotin Y
CORPORATE SOURCE: Bone and Cartilage Metabolism Research Unit, CHU Centre-Ville, Policliniques L. Brull, Quai Godefroid Kurth 45 (9 eme etage), 4020 LIEGE, Liege, Belgium.. jyreginster@ulg.ac.be
SOURCE: CURRENT RHEUMATOLOGY REPORTS, (2000 Dec) 2 (6) 472-7. Ref: 50
Journal code: 100888970. ISSN: 1523-3774.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20011108
Last Updated on STN: 20020121
Entered Medline: 20011207

AB Several entities have been carefully investigated for the symptomatic and structural management of osteoarthritis. The most compelling evidence of a potential for inhibiting the structural progression of osteoarthritis has been obtained with **glucosamine sulfate**, while some preliminary results also suggest that **chondroitin sulfate** could be used in the same indication. At any rate, these

two compounds have clearly demonstrated a symptomatic action, mainly in osteoarthritis of the lower limbs. Symptomatic effect on pain relief and improvement of functional disability was also reported with the use of avocado/soybean extracts. Other nutriceuticals, including ginger extracts, should be more extensively investigated. An important issue is that all the conclusive studies with such chemical entities resulted from the use of prescription medicines, and not over-the-counter pills or food supplements.

AB . . . of osteoarthritis. The most compelling evidence of a potential for inhibiting the structural progression of osteoarthritis has been obtained with **glucosamine sulfate**, while some preliminary results also suggest that **chondroitin sulfate** could be used in the same indication. At any rate, these two compounds have clearly demonstrated a symptomatic action, mainly. . .

CT Check Tags: Female; Human; Male
***Chondroitin Sulfates: AD, administration & dosage**
*Complementary Therapies: MT, methods
Controlled Clinical Trials
*Dietary Supplements
*Glucosamine: AD, administration & dosage
Osteoarthritis:. . .

RN 3416-24-8 (Glucosamine); **9007-28-7 (Chondroitin Sulfates)**

L11 ANSWER 14 OF 27 MEDLINE
ACCESSION NUMBER: 2001356992 MEDLINE
DOCUMENT NUMBER: 21310612 PubMed ID: 11416939
TITLE: Determining the efficacy of glucosamine and chondroitin for osteoarthritis.
AUTHOR: O'Rourke M
SOURCE: NURSE PRACTITIONER, (2001 Jun) 26 (6) 44-6, 49-52. Ref: 36
Journal code: OA1; 7603663. ISSN: 0361-1817.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Nursing Journals
ENTRY MONTH: 200111
ENTRY DATE: Entered STN: 20011105
Last Updated on STN: 20011105
Entered Medline: 20011101

AB **Glucosamine sulfate** and **chondroitin sulfate** are being used by many patients for the treatment of osteoarthritis. Despite a number of studies supporting efficacy of these agents for palliation of joint pain in patients with osteoarthritis, the American College of Rheumatology Subcommittee on Osteoarthritis believes that it is too early to issue recommendations for use. Currently, the National Institute of Arthritis and Musculoskeletal and Skin Diseases in collaboration with the National Center for Complementary and Alternative Medicine have begun a pivotal study to thoroughly evaluate these agents.

AB **Glucosamine sulfate** and **chondroitin sulfate** are being used by many patients for the treatment of osteoarthritis. Despite a number of studies supporting efficacy of these. . .

L11 ANSWER 15 OF 27 MEDLINE
ACCESSION NUMBER: 2001283165 MEDLINE
DOCUMENT NUMBER: 20700406 PubMed ID: 11366557
TITLE: Anecdotal reports: elderberry extract plus chondroitin and **glucosamine sulfate** and Thy-mate reduces viral load to non-detectable levels in 10 days.
AUTHOR: Anonymous

SOURCE: Posit Health News, (1998 Fall) (No 17) 7-11.
Journal code: 9890538.
PUB. COUNTRY: United States
(NEWSPAPER ARTICLE)
LANGUAGE: English
FILE SEGMENT: AIDS
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 20010529
Last Updated on STN: 20020222
Entered Medline: 20000503

AB Several HIV patients offer anecdotal reports in which they attribute significant viral load reductions to taking elderberry extract. Thy-Mate was also used. Case studies from six patients are presented. In an interview, Steven Rahn describes his self-imposed treatment and its effect on his viral load. Another case discusses reports of dicalcium phosphate, a binding agent found in some dietary supplements such as glucosamine, inhibiting absorption of the supplements. Other cases are described, and contact information is included.

TI Anecdotal reports: elderberry extract plus chondroitin and **glucosamine sulfate** and Thy-mate reduces viral load to non-detectable levels in 10 days.

CT Check Tags: Human
AIDS-Related Opportunistic Infections: PC, prevention & control
Calcium Phosphates: CH, chemistry
***Chondroitin Sulfates: TU, therapeutic use**
*Complementary Therapies
Drug Synergism
Drug Therapy, Combination
*Glucosamine: TU, therapeutic use
*HIV Infections: DT, drug therapy

. . .

RN 10103-46-5 (calcium phosphate); 3416-24-8 (Glucosamine); **9007-28-7 (Chondroitin Sulfates)**

L11 ANSWER 16 OF 27 MEDLINE
ACCESSION NUMBER: 2001283164 MEDLINE
DOCUMENT NUMBER: 20700405 PubMed ID: 11366556
TITLE: Sulfated polysaccharides (**chondroitin sulfate** and carrageenan) plus **glucosamine sulfate** are potent inhibitors of HIV.
AUTHOR: Konlee M
SOURCE: Posit Health News, (1998 Fall) (No 17) 4-7.
Journal code: 9890538.
PUB. COUNTRY: United States
(NEWSPAPER ARTICLE)
LANGUAGE: English
FILE SEGMENT: AIDS
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 20010529
Last Updated on STN: 20020222
Entered Medline: 20000503

AB **Chondroitin sulfate**, a fusion inhibitor found in human milk, appears to work by blocking the ability of a virus, such as HIV, to infect a cell. There are questions about whether cow or goat milk can offer the same fusion-inhibiting benefits. One sulfated monosaccharide, glucosamine 6-sulfate, appears to have significant anti-HIV activity. Carrageenan, a seaweed derivative, shows promise as a vaginal microbicide, and should be tested further to determine its effectiveness against HIV transmission.

TI Sulfated polysaccharides (**chondroitin sulfate** and carrageenan) plus **glucosamine sulfate** are potent inhibitors of HIV.

AB **Chondroitin sulfate**, a fusion inhibitor found in human

milk, appears to work by blocking the ability of a virus, such as HIV,. .
.
CT Check Tags: Human
Agar: TU, therapeutic use
Antigens, CD4: ME, metabolism
*Carrageenan: TU, therapeutic use
***Chondroitin Sulfates: TU, therapeutic use**
*Complementary Therapies
Drug Therapy, Combination
*Excipients: TU, therapeutic use
Glucosamine
HIV Envelope Protein gp120: ME, metabolism
. . .
RN 3416-24-8 (Glucosamine); 7631-86-9 (Silicon Dioxide); 9000-07-1 (Carrageenan); 9002-18-0 (Agar); **9007-28-7 (Chondroitin Sulfates)**

L11 ANSWER 17 OF 27 MEDLINE
ACCESSION NUMBER: 2001283150 MEDLINE
DOCUMENT NUMBER: 20700407 PubMed ID: 11366542
TITLE: A new triple combination therapy.
AUTHOR: Konlee M
SOURCE: Posit Health News, (1998 Fall) (No 17) 12-4.
Journal code: 9890538.
PUB. COUNTRY: United States
(NEWSPAPER ARTICLE)
LANGUAGE: English
FILE SEGMENT: AIDS
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 20010529
Last Updated on STN: 20020222
Entered Medline: 20000503
AB Elderberry, chondroitin, and **glucosamine sulfate** have been found to block HIV replication at three distinct points in the replication cycle. For quadruple therapy, a reverse transcriptase inhibitor such as olive leaf extract or Epivir (3TC) could be added. In one case, a female, taking no HIV drugs, used an elderberry extract, called Sambucol, with olive leaf extract and experienced a viral load drop from 17,000 to 4,000. Instructions are given for making both alcohol-free and alcohol-based elderberry extracts. In 1993, researchers at Jerusalem?s Hebrew University Medical School found in a placebo-controlled double-blind study that Sambucol led to a rapid recovery from influenza and inhibited replication of nine other strains of the flu virus. A theory is that elderberry renders viruses nonfunctional by staining and coating them. Another promising treatment is soil based organisms, which improved Natural Killer cell function in a person with CFIDS.
AB Elderberry, chondroitin, and **glucosamine sulfate** have been found to block HIV replication at three distinct points in the replication cycle. For quadruple therapy, a reverse. . .
CT Check Tags: Human
***Chondroitin Sulfates: TU, therapeutic use**
*Complementary Therapies
Cookery
Drug Therapy, Combination
*Glucosamine: TU, therapeutic use
*HIV Infections: DT, drug therapy
Plant. . .
RN 3416-24-8 (Glucosamine); **9007-28-7 (Chondroitin Sulfates)**

L11 ANSWER 18 OF 27 MEDLINE
ACCESSION NUMBER: 2001113996 MEDLINE
DOCUMENT NUMBER: 21003126 PubMed ID: 11127967
TITLE: Glucosamine and **chondroitin sulfates** in the treatment of osteoarthritis: a survey.

AUTHOR: de los Reyes G C; Koda R T; Lien E J
CORPORATE SOURCE: Department of Pharmaceutical Sciences, School of Pharmacy, University of Southern California, Los Angeles, CA 90089, USA.
SOURCE: PROGRESS IN DRUG RESEARCH, (2000) 55 81-103. Ref: 51
Journal code: Q0S. ISSN: 0071-786X.
PUB. COUNTRY: Switzerland
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010215

AB For more than 30 years, non-steroidal anti-inflammatory drugs (NSAIDs) have been used as standards in the treatment of osteoarthritis (OA). Serious and often life-threatening adverse effects due to these agents are common. Clinical findings have revealed that **glucosamine sulfate** and **chondroitin sulfate** are effective and safer alternatives to alleviate symptoms of OA. Experimental evidence indicates that these compounds and their low molecular weight derivatives have a particular tropism for cartilage where they serve as substrates in the biosynthesis of component building blocks. This paper is a literature review of the chemistry, mechanism of action, pharmacokinetics, clinical efficacy and safety of these two nutraceuticals.

TI Glucosamine and **chondroitin sulfates** in the treatment of osteoarthritis: a survey.

AB . . . of osteoarthritis (OA). Serious and often life-threatening adverse effects due to these agents are common. Clinical findings have revealed that **glucosamine sulfate** and **chondroitin sulfate** are effective and safer alternatives to alleviate symptoms of OA. Experimental evidence indicates that these compounds and their low molecular. . .

L11 ANSWER 19 OF 27 MEDLINE
ACCESSION NUMBER: 2000339372 MEDLINE
DOCUMENT NUMBER: 20339372 PubMed ID: 10883158
TITLE: GAG for osteoarthritis of the knee--a prospective study.
AUTHOR: Debi R; Robinson D; Agar G; Halperin N
CORPORATE SOURCE: Orthopedic Dept., Assaf Harofeh Medical Center, Zrifin.
SOURCE: HAREFUAH, (2000 Mar 15) 138 (6) 451-3, 518.
Journal code: FZF; 0034351. ISSN: 0017-7768.
PUB. COUNTRY: Israel
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: Hebrew
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200007
ENTRY DATE: Entered STN: 20000810
Last Updated on STN: 20000810
Entered Medline: 20000726

AB Osteoarthritis results from progressive catabolic loss of cartilage proteoglycans due to imbalance between synthesis and degradation. The availability of glucosamine, an intermediate in mucopolysaccharide synthesis, can be rate-limiting for proteoglycan production in cartilage tissue culture. 57 patients suffering from osteoarthritis of the knee were randomized into a group treated for 4 weeks with daily i.v. **glucosamine sulfate** (GS) together with 800 mg **chondroitin sulfate**, and a placebo group. Knee pain at rest, on movement and on palpation, as well as range of knee motion were

then recorded. In the GS group, there was significant reduction of clinical symptoms ($p < 0.01$), but no significant reduction in the placebo group. Physicians' assessment of tenderness and range of motion were significantly in favor of the GS group ($p < 0.01$). In those treated with glycosamine there were no adverse reactions and no changes in laboratory blood tests. We conclude that GS can be considered the drug of choice for prolonged treatment of osteoarthritis.

AB . . . 57 patients suffering from osteoarthritis of the knee were randomized into a group treated for 4 weeks with daily i.v. **glucosamine sulfate** (GS) together with 800 mg **chondroitin sulfate**, and a placebo group. Knee pain at rest, on movement and on palpation, as well as range of knee motion. . .

CT Check Tags: Comparative Study; Female; Human; Male
Adult
Aged
Aged, 80 and over
***Chondroitin Sulfates: TU, therapeutic use**
*Glucosamine: TU, therapeutic use
Glycosaminoglycans: TU, therapeutic use
*Knee Joint
Middle Age
*Osteoarthritis: DT, drug therapy

. . .

RN 3416-24-8 (Glucosamine); **9007-28-7 (Chondroitin Sulfates)**

L11 ANSWER 20 OF 27 MEDLINE
ACCESSION NUMBER: 1999446182 MEDLINE
DOCUMENT NUMBER: 99446182 PubMed ID: 10516985
TITLE: Nutrition and dietary supplements.
AUTHOR: Fillmore C M; Bartoli L; Bach R; Park Y
CORPORATE SOURCE: Pendleton Community Care, Franklin, West Virginia, USA.
SOURCE: PHYSICAL MEDICINE AND REHABILITATION CLINICS OF NORTH AMERICA, (1999 Aug) 10 (3) 673-703. Ref: 177
Journal code: CX9; 9102787. ISSN: 1047-9651.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199911
ENTRY DATE: Entered STN: 20000111
Last Updated on STN: 20000111
Entered Medline: 19991116

AB Quality and number of subjects in blinded controlled clinical trials about the nutrition and dietary supplements discussed here is variable. **Glucosamine sulfate** and **chondroitin sulfate** have sufficient controlled trials to warrant their use in osteoarthritis, having less side effects than currently used nonsteroidal anti-inflammatory drugs, and are the only treatment shown to prevent progression of the disease. Dietary supplements of ephedrine plus caffeine for weight loss (weight loss being the current first line recommendation of physicians for osteoporosis) show some promise, but are not sufficient in number of study subjects. Phenylpropanolamine is proven successful in weight loss. Both ephedrine and phenylpropanolamine have resulted in deaths and hence are worrisome [table: see text] as an over-the-counter dietary supplement. Other commonly used weight loss supplements like Cola acuminata, dwarf elder, Yohimbine, and Garcinia camborgia are either lacking controlled clinical trials, or in the case of the last two supplements, have clinical trials showing lack of effectiveness (although Garcinia has been successful in trials as part of a mixture with other substances, it is unclear if it was a necessary part of the mixture). Safety of these weight loss supplements is unknown. Chromium as a body

building supplement for athletes appears to have no efficacy. Creatine may help more in weight lifting than sprinting, but insufficient study subjects and safety information make more studies necessary. Carbohydrate loading is used commonly before endurance competitions, but may be underused as it may be beneficial for other sport performances. Supplements for muscle injury or cramps have had too few studies to determine efficacy. Although proper rehydration with fluids and electrolytes is necessary, a paucity of actual studies to maximize prophylactic treatment for exercise induced cramping still exists. Nutritional supplements for cardiovascular disorders are generally geared to prevention. The United States Department of Agriculture has good recommendations to prevent atherosclerosis; a stricter version by Ornish was shown to reverse coronary heart disease, and the low meat, high fruit, and vegetable DASH diet has been found to decrease hypertension. The epidemiologic studies of hyperhomocysteinemia are impressive enough to give folic acid (or vitamin B6 or B12) supplements to those with elevated homocysteine levels and test patients who have a history of atherosclerotic disease, but no controlled clinical trials have been completed. Soluble fiber has several positive studies in reduction of cholesterol levels and generally is accepted. The data on vitamin E are the most confusing. This vitamin was not helpful in cerebrovascular prevention in China and not helpful at relatively small doses (50 mg) in the United States or Finland against major coronary events. Levels of 400 mg appeared to decrease cardiovascular disease in the United States in studies based on reports by patients and in one large clinical trial. Vitamin E also was successful in prevention of restenosis after PTCA in one clinical trial. Both of these clinical trials need to be repeated in other developed country populations. Some nutritional and dietary supplements are justifiably useful at this point in time. Several meet the criteria of a late Phase 3 FDA clinical trial (where it would be released for public use), but many dietary supplements have insufficient numbers of studies. Some deaths also have occurred with some supplements. If these supplements were required to undergo clinical trials necessary for a new drug by the FDA, they would not be released yet to the public. Several nontoxic supplements appear promising, though need further study. Because they have essentially no toxicity (such as folic acid with B12, soluble fiber, and vitamin E) and may have efficacy, some of these supplementations may be useful now, without randomized clinical trials.

AB Quality and number of subjects in blinded controlled clinical trials about the nutrition and dietary supplements discussed here is variable. **Glucosamine sulfate** and **chondroitin sulfate** have sufficient controlled trials to warrant their use in osteoarthritis, having less side effects than currently used nonsteroidal anti-inflammatory drugs,. . .

L11 ANSWER 21 OF 27 MEDLINE
ACCESSION NUMBER: 1999316135 MEDLINE
DOCUMENT NUMBER: 99316135 PubMed ID: 10383484
TITLE: **Glucosamine sulfate**.
AUTHOR: Anonymous
SOURCE: ALTERNATIVE MEDICINE REVIEW, (1999 Jun) 4 (3) 193-5.
Journal code: C2X; 9705340. ISSN: 1089-5159.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: K
ENTRY MONTH: 199908
ENTRY DATE: Entered STN: 19990827
Last Updated on STN: 19990827
Entered Medline: 19990817

AB **Glucosamine sulfate**'s role in halting or reversing joint degeneration appears to be directly due to its ability to act as an essential substrate for, and to stimulate the biosynthesis of, the

glycosaminoglycans and the **hyaluronic acid** backbone needed for the formation of the proteoglycans found in the structural matrix of joints. Successful treatment of osteoarthritis must effectively control pain and should slow down or reverse the progression of the degeneration. Biochemical and pharmacological data combined with animal and human studies demonstrate that **glucosamine sulfate** is capable of satisfying both of these criteria.

TI **Glucosamine sulfate**.

AB **Glucosamine sulfate**'s role in halting or reversing joint degeneration appears to be directly due to its ability to act as an essential substrate for, and to stimulate the biosynthesis of, the glycosaminoglycans and the **hyaluronic acid** backbone needed for the formation of the proteoglycans found in the structural matrix of joints. Successful treatment of osteoarthritis must. . . down or reverse the progression of the degeneration. Biochemical and pharmacological data combined with animal and human studies demonstrate that **glucosamine sulfate** is capable of satisfying both of these criteria.

L11 ANSWER 22 OF 27 MEDLINE

ACCESSION NUMBER: 1999284912 MEDLINE
DOCUMENT NUMBER: 99284912 PubMed ID: 10356424
TITLE: Nutraceuticals as therapeutic agents in osteoarthritis. The role of glucosamine, **chondroitin sulfate** , and collagen hydrolysate.
AUTHOR: Deal C L; Moskowitz R W
CORPORATE SOURCE: Division of Rheumatology, Case Western Reserve University School of Medicine, University Hospitals, Cleveland, Ohio, USA.
SOURCE: RHEUMATIC DISEASES CLINICS OF NORTH AMERICA, (1999 May) 25 (2) 379-95. Ref: 38
Journal code: RDC; 8708093. ISSN: 0889-857X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990730
Last Updated on STN: 19990730
Entered Medline: 19990716

AB There are a sufficient number of short-term studies with these agents suggesting efficacy equal to that seen in the symptomatic treatment of OA using NSAIDs. Two recent meta-analyses by McAlindon and colleagues and Towheed et al reviewed clinical trials of glucosamine and chondroitin in the treatment of osteoarthritis. The study by McAlindon and co-workers included all double-blind placebo-controlled trials of greater than 4 weeks' duration, testing oral or parenteral glucosamine or chondroitin for treatment of hip or knee osteoarthritis. Thirteen trials (six with glucosamine, seven with chondroitin) met eligibility criteria. The authors used global pain score or the Lequesne index in the index joint as the primary outcome measure and considered the trial positive if improvement in the treatment group was equal to or greater than 25% compared with the placebo group, and was significant ($P < or = .05$). All 13 studies reviewed were classified as positive, demonstrating large effects, compared with placebo (39.5% [S.D. 21.9] for glucosamine, 40.2% [S.D. 6.4] for chondroitin). The authors concluded that clinical trials of these two agents showed substantial benefit in the treatment of osteoarthritis but provided insufficient information about study design and conduct to allow definitive evaluation. Towheed and colleagues reviewed nine randomized, controlled trials of **glucosamine sulfate** in osteoarthritis. In seven of the randomized controlled trials, in which

they compared glucosamine with placebo, glucosamine was always superior. In two randomized controlled trials comparing glucosamine to ibuprofen, glucosamine was superior in one and equivalent in one. Methodologic problems, including lack of standardized case definition of osteoarthritis and lack of standardized outcome assessment led the authors to conclude that further studies are needed to determine if route of administration is important and whether the therapeutic effect is site specific. A meta-analysis of **chondroitin sulfate** trials has also been published. Of the 12 published trials, 4 randomized double-blind placebo or NSAID-controlled trials with 227 patients on **chondroitin sulfate** were entered into the analysis. All four studies showed **chondroitin sulfate** to be superior to placebo, with respect to Lequesne index, visual analog scale for pain and medication consumption. Significant changes (P < or = .05) were seen in those treated from day 60 to the study endpoints (150 to 180 days). Pooled data demonstrated at least 50% improvement in the study variables in the chondroitin treated group. Discrepancies in some of the study findings reported in the literature may relate to the composition of the nutritional supplements used. Studies in the United States have revealed that a number of preparations claiming to contain certain doses of glucosamine or **chondroitin sulfate** have significantly less (or none) of the dosages described. Accordingly, it is essential that studies performed with these agents use preparations that are carefully defined in manufacture. The amounts generally administered are glucosamine, 1500 mg, and **chondroitin sulfate**, 1200 mg, daily. Although glucosamine has been described as effective when used alone, it is probably reasonable to use the combination pending further studies. The average cost is approximately $30 to $45 per month. In the interim, what should physicians tell their patients when they ask whether these agents are effective, or whether they should or should not take them? The authors emphasize that these agents are not FDA-evaluated or recommended for the treatment of OA. They are available as health food supplements, and the number of studies of toxicity, particularly with respect to long-term evaluations, is limited. The pros and cons of these agents and the published data are described so that patients can make a reasonably informed decision as to whether they wish to proceed with use of these agents in therapy. (ABSTRACT TRUNCATED)

TI Nutraceuticals as therapeutic agents in osteoarthritis. The role of glucosamine, **chondroitin sulfate**, and collagen hydrolysate.

AB . . . insufficient information about study design and conduct to allow definitive evaluation. Towheed and colleagues reviewed nine randomized, controlled trials of **glucosamine sulfate** in osteoarthritis. In seven of the randomized controlled trials, in which they compared glucosamine with placebo, glucosamine was always superior.. . . needed to determine if route of administration is important and whether the therapeutic effect is site specific. A meta-analysis of **chondroitin sulfate** trials has also been published. Of the 12 published trials, 4 randomized double-blind placebo or NSAID-controlled trials with 227 patients on **chondroitin sulfate** were entered into the analysis. All four studies showed **chondroitin sulfate** to be superior to placebo, with respect to Lequesne index, visual analog scale for pain and medication consumption. Significant changes. . . Studies in the United States have revealed that a number of preparations claiming to contain certain doses of glucosamine or **chondroitin sulfate** have significantly less (or none) of the dosages described. Accordingly, it is essential that studies performed with these agents use preparations that are carefully defined in manufacture. The amounts generally administered are glucosamine, 1500 mg, and **chondroitin sulfate**, 1200 mg, daily. Although glucosamine has been described as effective when used alone, it is probably reasonable to use the. . .

CT Check Tags: Animal; Human

***Chondroitin Sulfates: TU, therapeutic use**
Clinical Trials
*Collagen: TU, therapeutic use
*Drugs, Non-Prescription: TU, therapeutic use
*Glucosamine: TU, therapeutic use
*Osteoarthritis:. . .
RN 3416-24-8 (Glucosamine); **9007-28-7 (Chondroitin Sulfates)**;
9007-34-5 (Collagen)

L11 ANSWER 23 OF 27 MEDLINE
ACCESSION NUMBER: 1999275244 MEDLINE
DOCUMENT NUMBER: 99275244 PubMed ID: 10343776
TITLE: Stimulation of proteoglycan production by **glucosamine sulfate** in chondrocytes isolated from human osteoarthritic articular cartilage in vitro.
AUTHOR: Bassleer C; Rovati L; Franchimont P
CORPORATE SOURCE: Department of Rheumatology, University Hospital, Liege, Belgium.. Corinne.Bassleer@ulg.ac.be
SOURCE: OSTEOARTHRITIS AND CARTILAGE, (1998 Nov) 6 (6) 427-34. Journal code: CCO; 9305697. ISSN: 1063-4584.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199906
ENTRY DATE: Entered STN: 19990628
Last Updated on STN: 19990628
Entered Medline: 19990614

AB OBJECTIVE: This study investigated the in-vitro effects of a crystalline **glucosamine sulfate** (GS) preparation on DNA synthesis and on proteoglycan (PG) and type II collagen (coll II) production by human articular chondrocytes isolated from human osteoarthritic articular cartilage in a 3-dimensional culture system for 4, 8, and 12 days. MATERIALS AND METHODS: Human articular chondrocytes from osteoarthritic femoral heads were isolated from their matrix by collagenase digestion and then cultured in suspension. Under constant agitation, cells aggregated and formed a cluster within a few days. The effects of GS (1-100 micrograms/ml) on chondrocytes were determined by quantifying DNA synthesis (by measurement of [3H]-thymidine uptake) as well as PG and coll II production using radiommunoassays (RIAs) specific for coll II and to human human cartilage PG. Cross-reaction with GS in the RIAs was not detected. Moreover, PG size distribution was determined by exclusion chromatography under associative conditions to determine the association of PG monomers with **hyaluronic acid** (HA) to form large molecular weight PG aggregates. RESULTS: Under the above conditions, PG production in culture media and chondrocyte clusters was increased by GS (10-100 micrograms/ml). DNA synthesis and coll II production were not modified by GS. In addition, GS did not modify the physico-chemical form of PG produced by cells during culture. CONCLUSIONS: **Glucosamine sulfate** did not affect DNA synthesis nor coll II production but caused a statistically significant stimulation of PG production by chondrocytes from human osteoarthritic cartilage cultured for up to 12 days in 3-dimensional cultures.
TI Stimulation of proteoglycan production by **glucosamine sulfate** in chondrocytes isolated from human osteoarthritic articular cartilage in vitro.
AB OBJECTIVE: This study investigated the in-vitro effects of a crystalline **glucosamine sulfate** (GS) preparation on DNA synthesis and on proteoglycan (PG) and type II collagen (coll II) production by human articular chondrocytes. . . . Moreover, PG size distribution was determined by exclusion chromatography under associative conditions to determine the association of PG monomers with **hyaluronic**

acid (HA) to form large molecular weight PG aggregates. RESULTS: Under the above conditions, PG production in culture media and chondrocyte. . . modified by GS. In addition, GS did not modify the physico-chemical form of PG produced by cells during culture. CONCLUSIONS: **Glucosamine sulfate** did not affect DNA synthesis nor coll II production but caused a statistically significant stimulation of PG production by chondrocytes. . .

L11 ANSWER 24 OF 27 MEDLINE
ACCESSION NUMBER: 1998262758 MEDLINE
DOCUMENT NUMBER: 98262758 PubMed ID: 9600024
TITLE: The role of **glucosamine sulfate** and **chondroitin sulfates** in the treatment of degenerative joint disease.
AUTHOR: Kelly G S
SOURCE: ALTERNATIVE MEDICINE REVIEW, (1998 Feb) 3 (1) 27-39. Ref: 34
Journal code: C2X; 9705340. ISSN: 1089-5159.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: K
ENTRY MONTH: 199806
ENTRY DATE: Entered STN: 19980618
Last Updated on STN: 19980618
Entered Medline: 19980605

AB Successful treatment of osteoarthritis must effectively control pain, and should slow down or reverse progression of the disease. Biochemical and pharmacological data combined with animal and human studies demonstrate **glucosamine sulfate** is capable of satisfying these criteria. **Glucosamine sulfate**'s primary biological role in halting or reversing joint degeneration appears to be directly due to its ability to act as an essential substrate for, and to stimulate the biosynthesis of, the glycosaminoglycans and the **hyaluronic acid** backbone needed for the formation of proteoglycans found in the structural matrix of joints. **Chondroitin sulfates**, whether they are absorbed intact or broken into their constituent components, similarly provide additional substrates for the formation of a healthy joint matrix. Evidence also supports the oral administration of **chondroitin sulfates** for joint disease, both as an agent to slowly reduce symptoms and to reduce the need for non-steroidal anti-inflammatory drugs. The combined use of **glucosamine sulfate** and **chondroitin sulfates** in the treatment of degenerative joint disease has become an extremely popular supplementation protocol in arthritic conditions of the joints. Although **glucosamine sulfate** and **chondroitin sulfates** are often administered together, there is no information available to demonstrate the combination produces better results than **glucosamine sulfate** alone.

TI The role of **glucosamine sulfate** and **chondroitin sulfates** in the treatment of degenerative joint disease.

AB . . . should slow down or reverse progression of the disease. Biochemical and pharmacological data combined with animal and human studies demonstrate **glucosamine sulfate** is capable of satisfying these criteria. **Glucosamine sulfate**'s primary biological role in halting or reversing joint degeneration appears to be directly due to its ability to act as an essential substrate for, and to stimulate the biosynthesis of, the glycosaminoglycans and the **hyaluronic acid** backbone needed for the formation of proteoglycans found in the structural matrix of joints.

Chondroitin sulfates, whether they are absorbed intact or broken into their constituent components, similarly provide additional substrates for the formation of a healthy joint matrix. Evidence also supports the oral administration of **chondroitin sulfates** for joint disease, both as an agent to slowly reduce symptoms and to reduce the need for non-steroidal anti-inflammatory drugs. The combined use of **glucosamine sulfate** and **chondroitin sulfates** in the treatment of degenerative joint disease has become an extremely popular supplementation protocol in arthritic conditions of the joints. Although **glucosamine sulfate** and **chondroitin sulfates** are often administered together, there is no information available to demonstrate the combination produces better results than **glucosamine sulfate** alone.

CT Check Tags: Human
Chondroitin Sulfates: CH, chemistry
Chondroitin Sulfates: ME, metabolism
***Chondroitin Sulfates: TU, therapeutic use**
Drug Therapy, Combination
Glucosamine: ME, metabolism
*Glucosamine: TU, therapeutic use
*Osteoarthritis: DT, drug therapy

RN 3416-24-8 (Glucosamine); **9007-28-7 (Chondroitin Sulfates)**

L11 ANSWER 25 OF 27 MEDLINE
ACCESSION NUMBER: 93239408 MEDLINE
DOCUMENT NUMBER: 93239408 PubMed ID: 1300309
TITLE: In-vitro evaluation of drugs proposed as chondroprotective agents.
AUTHOR: Bassleer C; Henrotin Y; Franchimont P
CORPORATE SOURCE: Laboratory of Radioimmunology, University of Liege, Belgium.
SOURCE: INTERNATIONAL JOURNAL OF TISSUE REACTIONS, (1992) 14 (5) 231-41.
Journal code: GTG; 8302116. ISSN: 0250-0868.
PUB. COUNTRY: Switzerland
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199305
ENTRY DATE: Entered STN: 19930611
Last Updated on STN: 19930611
Entered Medline: 19930521

AB Three proposed chondroprotective agents (CP), namely **glucosamine sulfate** (GAS), **chondroitin sulfate** (CS) and glycosaminoglycan-peptide complex (GP-C), were tested on differentiated human articular chondrocytes cultured in clusters. Chondrocyte productions of proteoglycans (PG), type II collagen (coll. II) and prostaglandin E2 (PGE2) were established by specific radioimmunoassays applied to the culture medium (CM) and in chondrocyte clusters (CC). Collagenolytic activity was assayed in CM. DNA synthesis, studied by measuring 3H-thymidine incorporation, was unaffected by CS and GAS. GP-C, at low concentration, stimulated DNA synthesis. GP-C, at higher doses, induced a high increase in PG and coll. II productions. GAS and CS induced a stimulatory effect limited to PG production. None of the CP tested here affected the basal PGE2 production by human chondrocytes.

AB Three proposed chondroprotective agents (CP), namely **glucosamine sulfate** (GAS), **chondroitin sulfate** (CS) and glycosaminoglycan-peptide complex (GP-C), were tested on differentiated human articular chondrocytes cultured in clusters. Chondrocyte productions of proteoglycans (PG),. . .

CT Check Tags: Human
Cartilage, Articular: CY, cytology
*Cartilage, Articular: DE, drug effects

Cells, Cultured
***Chondroitin Sulfates: PD, pharmacology**
Collagen: AN, analysis
Collagen: BI, biosynthesis
Dinoprostone: AN, analysis
Dinoprostone: BI, biosynthesis
*Glucosamine: PD, pharmacology
Glycosaminoglycans: CH,. . .
RN 3416-24-8 (Glucosamine); 363-24-6 (Dinoprostone); 50-89-5 (Thymidine); **9007-28-7 (Chondroitin Sulfates)**; 9007-34-5 (Collagen)

L11 ANSWER 26 OF 27 MEDLINE
ACCESSION NUMBER: 91051825 MEDLINE
DOCUMENT NUMBER: 91051825 PubMed ID: 2146882
TITLE: Early accumulation of heparan sulfate in neurons and in the beta-amyloid protein-containing lesions of Alzheimer's disease and Down's syndrome.
AUTHOR: Snow A D; Mar H; Nochlin D; Sekiguchi R T; Kimata K; Koike Y; Wight T N
CORPORATE SOURCE: Department of Pathology, University of Washington, Seattle 98195.
CONTRACT NUMBER: P50 AG05136 (NIA)
SOURCE: AMERICAN JOURNAL OF PATHOLOGY, (1990 Nov) 137 (5) 1253-70. Journal code: 3RS; 0370502. ISSN: 0002-9440.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199012
ENTRY DATE: Entered STN: 19910208
Last Updated on STN: 20000303
Entered Medline: 19901211

AB A monoclonal antibody (HK-249) that recognizes a **glucosamine sulfate** alpha 1----4 glucuronic acid-containing determinant in heparan sulfate (HS) chains of a basement membrane-derived heparan sulfate proteoglycan identified and immunolocalized HS specifically to the amyloid deposits in neuritic plaques (NPs), congophilic angiopathy (CA), as well as in neurofibrillary tangles (NFTs) and non-tangle-bearing neurons in the brains of Alzheimer's and Down's syndrome (DS) patients. Ultrastructural immunohistochemistry demonstrated that HS within neurons of Alzheimer's disease (AD) brain was localized to lipofuscin granules, an aging pigment previously shown also to contain beta-amyloid protein (BAP). Heparan sulfate also was localized to neurite-containing, nonfibrillar 'primitive' plaques that also demonstrated positive BAP immunoreactivity in both AD and DS brains. Antibodies to laminin, fibronectin, and a **chondroitin sulfate** proteoglycan failed to show positive immunostaining of the HS-containing sites described above. Analysis of DS patients at different ages revealed that HS accumulated within neurons of the hippocampus and amygdala as early as 1 day after birth. Young age-matched controls did not demonstrate similar positive HS immunoreactivity in neurons, whereas positive immunostaining for HS was observed in other regions thought to normally contain HS. The earliest deposition of BAP was first observed as 'amorphous' or 'diffuse' cortical deposits in DS brain in patients aged 18 and 24 years before the accumulation of fibrillar amyloid (observed in DS patients who are 35 years and older). These cortical deposits also contained positive HS immunoreactivity, implying that HS accumulation in conjunction with the BAP is an early event that ultimately may contribute to the early age-related accumulation (ie, as early as 35 years of age in DS) of NPs, NFTs, and/or CA. Furthermore the colocalization of HS and BAP in a number of specific locales in AD and DS brain indicates a possible interaction between these two macromolecules that may be important in lesion development in these two diseases.

AB A monoclonal antibody (HK-249) that recognizes a **glucosamine sulfate** alpha 1----4 glucuronic acid-containing determinant in heparan sulfate (HS) chains of a basement membrane-derived heparan sulfate proteoglycan identified and immunolocalized. . . 'primitive' plaques that also demonstrated positive BAP immunoreactivity in both AD and DS brains. Antibodies to laminin, fibronectin, and a **chondroitin sulfate** proteoglycan failed to show positive immunostaining of the HS-containing sites described above. Analysis of DS patients at different ages revealed. . .

L11 ANSWER 27 OF 27 MEDLINE
ACCESSION NUMBER: 83122526 MEDLINE
DOCUMENT NUMBER: 83122526 PubMed ID: 6818789
TITLE: [Effect of hexosamine derivatives on mesenchymal metabolic processes of in vitro cultured fetal bone explants]. Uber den Einfluss von Hexosaminderivaten auf mesenchymale Stoffwechselprozesse in vitro gezuchteter fetaler Knochenanlagen.
AUTHOR: Karzel K; Lee K J
SOURCE: ZEITSCHRIFT FUR RHEUMATOLOGIE, (1982 Sep-Oct) 41 (5) 212-8. Journal code: Y0V; 0414162. ISSN: 0340-1855.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198303
ENTRY DATE: Entered STN: 19900318
Last Updated on STN: 20000303
Entered Medline: 19830311

AB The effects of hexosamine derivatives, glucuronic acid, **chondroitin sulfate**, and oxyphenbutazone on growth and glycosaminoglycan metabolism of murine fetal bone explants cultured for 6 days in vitro were studied. Glucosamine hydrochloride, glucosamine hydroiodide and **glucosamine sulfate** (at concentrations of 100 micrograms/ml) caused a significant increase in the growth of the explants; this effect was not due to an increase in cell multiplication, as can be concluded from the DNA content of the explants, but rather to an increase in the glycosaminoglycans in the extracellular cartilage matrix. In addition, the three glucosamine salts induced an increase in the secretion of glycosaminoglycans from the surface of the explants into the culture medium. N-acetylgalactosamine, sodium glucuronide and **chondroitin sulfate** showed lesser or nonsignificant effects as compared to the glucosamine derivatives or the controls. Galactosamine hydrochloride (100 micrograms/ml) exerted inhibitory actions on the bone explants. Oxyphenbutazone (10 micrograms/ml), also, led to a significant inhibition of the growth and glycosaminoglycan metabolism of the explants without influencing (at this concentration) their DNA content. From the results obtained it is concluded that in the treatment of degenerative joint diseases nonsteroidal antiphlogistics acting similarly to oxyphenbutazone should be used, if at all, as cautiously as possible, whereas drugs with the type of action observed in the three glucosamine derivatives could be expected to exert a beneficial effect.

AB The effects of hexosamine derivatives, glucuronic acid, **chondroitin sulfate**, and oxyphenbutazone on growth and glycosaminoglycan metabolism of murine fetal bone explants cultured for 6 days in vitro were studied. Glucosamine hydrochloride, glucosamine hydroiodide and **glucosamine sulfate** (at concentrations of 100 micrograms/ml) caused a significant increase in the growth of the explants; this effect was not due. . . increase in the secretion of glycosaminoglycans from the surface of the explants into the culture medium. N-acetylgalactosamine, sodium glucuronide and **chondroitin sulfate** showed lesser or nonsignificant effects as compared to the glucosamine derivatives or the controls. Galactosamine hydrochloride (100

micrograms/ml) exerted inhibitory. . .
CT Check Tags: Animal; Female
*Bone Development: DE, drug effects
Bone and Bones
Chondroitin Sulfates: PD, pharmacology
Fetus
Glucuronates: PD, pharmacology
Glucuronic Acid
Glycosaminoglycans: ME, metabolism
*Hexosamines: PD, pharmacology
Mice
Mice, Inbred Strains
. . .
RN 129-20-4 (Oxyphenbutazone); 576-37-4 (Glucuronic Acid); **9007-28-7 (Chondroitin Sulfates)**

(FILE 'HOME' ENTERED AT 18:07:09 ON 21 MAR 2002)

FILE 'HCAPLUS, CAPLUS' ENTERED AT 18:07:39 ON 21 MAR 2002

L1 38308 S CHONDROITIN SULFATE OR KERATAN SULFATE OR DERMATAN SULFATE OR
L2 86 S L1 AND GLUCOSAMINE SULFATE
L3 11154 S MYRICETIN OR GENESTEIN OR KAEMPFEROL
L4 0 S L3 AND L2
L5 4 S L2 AND FLAVONOID
L6 0 S L5 AND OLIVE OIL
L7 0 S L5 AND DIPHENHYDRAMINE
L8 6 S L3 AND DIPHENHYDRAMINE
L9 0 S L8 AND L2

FILE 'BIOSIS, MEDLINE' ENTERED AT 18:15:26 ON 21 MAR 2002

L10 29420 S L1
L11 27 S L2
L12 0 S L4
L13 0 S L5
L14 0 S L6
L15 0 S L11 AND DIPHENHYDRAMINE
L16 0 S L8

L8 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:791417 HCAPLUS
DOCUMENT NUMBER: 134:141121
TITLE: Next-generation universal columns for RPLC
AUTHOR(S): Verstraeten, Will; de Zeeuw, Jaap; Crombeen, Jim; Vonk, Nico
CORPORATE SOURCE: Varian Chrompack, Middelburg, 4330, Neth.
SOURCE: American Laboratory (Shelton, Connecticut) (2000), 32(20), 20,22,24-25,28-29
CODEN: ALBYBL; ISSN: 0044-7749
PUBLISHER: International Scientific Communications, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The OmniSpher 5 C18 packing material (Varian Chrompack, Middelburg, The Netherlands) can be used for the anal. of neutral, acidic, and basic compds., making it a true universal RPLC column. The OmniSpher 5 C18 is a high carbon loading and ligand d. stationary phase for RPLC. The characteristics and applications of the column are described. The column demonstrates high column efficiency, good column stability for continuous use, to have practical pH range between 2.0 and 8.0, and to be compatible for high-speed LC and LC-MS.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 50-21-5, Lactic acid, analysis 50-48-6, Amitriptyline 50-49-7, Imipramine 58-08-2, Caffeine, analysis 58-73-1, **Diphenhydramine** 62-53-3, Aniline, analysis 64-18-6, Formic acid, analysis 66-22-8, Uracil, analysis 72-69-5, Nortriptyline 76-57-3, Codeine 84-15-1, o-Terphenyl 91-23-6, 2-Nitroanisole 95-53-4, o-Toluidine, analysis 100-01-6, 4-Nitroaniline, analysis 100-41-4, Ethylbenzene, analysis 100-46-9, Benzylamine, analysis 100-61-8, N-Methylaniline, analysis 103-65-1, Propylbenzene 106-49-0, p-Toluidine, analysis 108-44-1, m-Toluidine, analysis 108-88-3, Toluene, analysis 108-95-2, Phenol, analysis 110-86-1, Pyridine, analysis 117-39-5, Quercetin 122-99-6, Phenoxyethanol 130-95-0, Quinine 153-18-4, Rutin 154-23-4, Catechin 217-59-4, Triphenylene 438-60-8, Protriptyline 480-16-0, Morin 480-41-1, Naringenin 490-46-0, Epi-Catechin 520-18-3, **Kaempferol** 520-36-5, Apigenin 529-44-2, **Myricetin** 578-54-1, 2-Ethylaniline 1668-19-5, Doxepin
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(analyte; OmniSpher 5 C18 universal columns for RPLC sepn. of)

L8 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:112253 HCAPLUS
DOCUMENT NUMBER: 128:176159
TITLE: Treatment of stress-induced skin disease by corticotropin releasing hormone antagonists and skin mast cell degranulation inhibitors
INVENTOR(S): Theoharides, Theoharis C.
PATENT ASSIGNEE(S): Kos Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9805354	A2	19980212	WO 1997-US13776	19970806
WO 9805354	A3	19980514		

W: AU, CA, NZ

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 6020305	A	20000201	US 1996-689277	19960806
AU 9739089	A1	19980225	AU 1997-39089	19970806
EP 942749	A2	19990922	EP 1997-936413	19970806

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.:	US 1996-689277	19960806
	WO 1997-US13776	19970806

AB A method of reducing or blocking a stress-related atopic skin disease (e.g. eczema or urticaria) in a subject comprises administering to the patient an agent that antagonizes CRH-induced activation of skin mast cells, the agent being used alone or together with a second agent that inhibits activation of skin mast cells. Such agents include compns. that reduce the prodn. or secretion of CRH, neurotensin or somatostatin or an agent that inhibits the physiol. action of CRH, neurotensin or somatostatin on skin mast cells. The effects of CRH on skin mast cells can also be inhibited by histamine-3 receptor antagonists and by inhibitors of the phosphorylation of skin mast cell moesin.

IT 58-73-1, **Diphenhydramine** 68-88-2, Hydroxyzine 68-88-2D, Hydroxyzine, analogs 110-85-0D, Piperazine, derivs. 520-18-3, **Kaempferol** 1668-19-5, Doxepin 7294-27-1D, Bichromone, derivs. 16110-51-3, Cromolyn 16110-51-3D, Cromolyn, analogs 50679-08-8, Terfenadine 203257-41-4
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CRH antagonists and skin mast cell degranulation inhibitors for treatment of stress-induced skin disease)

L8 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	1995:338755 HCAPLUS
DOCUMENT NUMBER:	122:150993
TITLE:	Evaluation of chemopreventive agents in different mechanistic classes [by] using a rat tracheal epithelial cell culture transformation assay
AUTHOR(S):	Arnold, Julia T.; Wilkinson, Betty P.; Sharma, Sheela; Steele, Vernon E.
CORPORATE SOURCE:	Cellular and Molecular Toxicology Program, ManTech Environmental Technology, Research Triangle Park, NC, 27709, USA
SOURCE:	Cancer Res. (1995), 55(3), 537-43 CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB The rat tracheal epithelial (RTE) cell focus inhibition assay was used to identify potential anticarcinogenic agents. Ninety-nine compds. were evaluated for their ability to inhibit benzo[a]pyrene-induced transformation of RTE cells. Freshly isolated RTE cells were exposed to benzo[a]pyrene alone or in combination with a substance to be tested. After 30 days in culture, transformed foci were scored and inhibition was quantitated. Foci formation was inhibited mainly by agents which modulate the initiation of carcinogenesis by altering drug-metabolizing enzymes, inhibiting the binding of benzo[a]pyrene to DNA, enhancing detoxification of activated carcinogens, or by inducing epithelial cell differentiation. Such agents include antioxidants, free-radical scavengers, glutathione S-transferase enhancers, vitamins, retinoids, and SH compds. Agents which inhibit ornithine decarboxylase and arachidonic acid metab. were not as effective. The RTE assay provides important data for compd. selection prior to whole-animal-screening assays in the development of carcinogenesis-inhibiting drugs.

IT 50-78-2, Acetylsalicylic acid 52-53-9, Verapamil 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin 56-40-6, Glycine, biological studies 57-55-6, Propylene glycol, biological studies 58-27-5, Vitamin K3 58-73-1, **Diphenhydramine** 58-93-5,

Hydrochlorothiazide 59-30-3, Folic acid, biological studies 59-51-8, DL-Methionine 59-67-6, Nicotinic acid, biological studies 60-23-1, Cysteamine 60-54-8, Tetracycline 60-82-2, Phloretin 60-87-7, Promethazine 61-73-4, Methylene blue 62-46-4, Thioctic acid 69-65-8, D-Mannitol 69-93-2, Uric acid, biological studies 73-31-4, Melatonin 74-79-3, Arginine, biological studies 77-52-1, Ursolic acid 79-63-0, Lanosterol 83-46-5, .beta.-Sitosterol 83-86-3, Inositol hexaphosphate 83-89-6, Quinacrine 87-11-6, Thiolutin 99-73-0, p-Bromophenacyl bromide 110-17-8, Fumaric acid, biological studies 121-32-4, Ethylvanillin 121-33-5, Vanillin 121-79-9, Propyl gallate 129-46-4, Sodium suramin 137-66-6, Ascorbyl palmitate 141-84-4, 2-Thioxo-4-thiazolidinone 146-17-8, Riboflavin 5'-phosphate 150-13-0, p-Aminobenzoic acid 150-76-5, p-Methoxyphenol 155-58-8, Rhapontin 305-84-0, Carnosine 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 458-37-7, Curcumin 471-53-4, .alpha.-Glycyrrhetinic acid 471-80-7, Steviol 479-61-8 480-16-0, Morin 486-12-4, Triprolidine 520-36-5, Apigenin 529-44-2, **Myricetin** 532-11-6, Anethole trithione 569-65-3, Meclizine 592-88-1, Diallyl sulfide 599-79-1, Sulfasalazine 622-78-6, Benzyl isothiocyanate 624-49-7, Dimethyl fumarate 1135-24-6, Ferulic acid 1191-85-1, ETYA 1449-05-4, .beta.-Glycyrrhetinic acid 2050-87-5, Diallyl trisulfide 2179-58-0, Allyl methyl disulfide 2257-09-2, Phenethylisothiocyanate 2609-46-3, Amiloride 3766-08-3, DL-Palmitoylcarnitine 5697-56-3, Carbenoxolone 6385-02-0, Sodium meclofenamate 7235-40-7, .beta.-Carotene 7631-95-0, Sodium molybdate 7772-98-7, Sodium thiosulfate 8050-81-5, Simethicone 9003-39-8, Polyvinylpyrrolidone 10102-18-8, Sodium selenite 11103-57-4, Vitamin A 15826-37-6, Sodium cromolyn 17407-37-3, .alpha.-Tocopherol succinate 22916-47-8, Miconazole 25496-72-4, Glycerol monooleate 34135-85-8, Allyl methyl trisulfide 38194-50-2, Sulindac 52942-31-1, Etoperidone 55268-74-1, Praziquantel 57455-81-9, MAK 5 64224-21-1, Oltipraz 65595-90-6, N-(6-Aminohexyl)-5-chloro-1-naphthalenesulfonamide 75330-75-5, Lovastatin 75775-33-6, Purpurin 79331-86-5, MAK 4 91531-30-5, Antineoplaston A10 92285-01-3, Ajoene 110683-02-8 160371-97-1, BASF 47851 160372-07-6, Ro 16-9100 160372-08-7, Ro 19-2968 161279-28-3, BASF 47848 161279-29-4, BASF 47850 161279-30-7, BASF 51328

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(screening of drugs for inhibiting carcinogenesis by using rat tracheal epithelial cell culture)

L8 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:791417 CAPLUS
DOCUMENT NUMBER: 134:141121
TITLE: Next-generation universal columns for RPLC
AUTHOR(S): Verstraeten, Will; de Zeeuw, Jaap; Crombeen, Jim; Vonk, Nico
CORPORATE SOURCE: Varian Chrompack, Middelburg, 4330, Neth.
SOURCE: American Laboratory (Shelton, Connecticut) (2000), 32(20), 20,22,24-25,28-29
CODEN: ALBYBL; ISSN: 0044-7749
PUBLISHER: International Scientific Communications, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The OmniSpher 5 C18 packing material (Varian Chrompack, Middelburg, The Netherlands) can be used for the anal. of neutral, acidic, and basic compds., making it a true universal RPLC column. The OmniSpher 5 C18 is a high carbon loading and ligand d. stationary phase for RPLC. The characteristics and applications of the column are described. The column demonstrates high column efficiency, good column stability for continuous use, to have practical pH range between 2.0 and 8.0, and to be compatible for high-speed LC and LC-MS.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 50-21-5, Lactic acid, analysis 50-48-6, Amitriptyline 50-49-7, Imipramine 58-08-2, Caffeine, analysis 58-73-1, **Diphenhydramine** 62-53-3, Aniline, analysis 64-18-6, Formic acid, analysis 66-22-8, Uracil, analysis 72-69-5, Nortriptyline 76-57-3, Codeine 84-15-1, o-Terphenyl 91-23-6, 2-Nitroanisole 95-53-4, o-Toluidine, analysis 100-01-6, 4-Nitroaniline, analysis 100-41-4, Ethylbenzene, analysis 100-46-9, Benzylamine, analysis 100-61-8, N-Methylaniline, analysis 103-65-1, Propylbenzene 106-49-0, p-Toluidine, analysis 108-44-1, m-Toluidine, analysis 108-88-3, Toluene, analysis 108-95-2, Phenol, analysis 110-86-1, Pyridine, analysis 117-39-5, Quercetin 122-99-6, Phenoxyethanol 130-95-0, Quinine 153-18-4, Rutin 154-23-4, Catechin 217-59-4, Triphenylene 438-60-8, Protriptyline 480-16-0, Morin 480-41-1, Naringenin 490-46-0, Epi-Catechin 520-18-3, **Kaempferol** 520-36-5, Apigenin 529-44-2, **Myricetin** 578-54-1, 2-Ethylaniline 1668-19-5, Doxepin
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(analyte; OmniSpher 5 C18 universal columns for RPLC sepn. of)

L8 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:112253 CAPLUS
DOCUMENT NUMBER: 128:176159
TITLE: Treatment of stress-induced skin disease by corticotropin releasing hormone antagonists and skin mast cell degranulation inhibitors
INVENTOR(S): Theoharides, Theoharis C.
PATENT ASSIGNEE(S): Kos Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9805354	A2	19980212	WO 1997-US13776	19970806
WO 9805354	A3	19980514		
W: AU, CA, NZ				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6020305	A	20000201	US 1996-689277	19960806
AU 9739089	A1	19980225	AU 1997-39089	19970806
EP 942749	A2	19990922	EP 1997-936413	19970806
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1996-689277 19960806
WO 1997-US13776 19970806

AB A method of reducing or blocking a stress-related atopic skin disease (e.g. eczema or urticaria) in a subject comprises administering to the patient an agent that antagonizes CRH-induced activation of skin mast cells, the agent being used alone or together with a second agent that inhibits activation of skin mast cells. Such agents include compns. that reduce the prodn. or secretion of CRH, neurotensin or somatostatin or an agent that inhibits the physiol. action of CRH, neurotensin or somatostatin on skin mast cells. The effects of CRH on skin mast cells can also be inhibited by histamine-3 receptor antagonists and by inhibitors of the phosphorylation of skin mast cell moesin.

IT 58-73-1, **Diphenhydramine** 68-88-2, Hydroxyzine 68-88-2D, Hydroxyzine, analogs 110-85-0D, Piperazine, derivs. 520-18-3, **Kaempferol** 1668-19-5, Doxepin 7294-27-1D, Bichromone, derivs. 16110-51-3, Cromolyn 16110-51-3D, Cromolyn, analogs 50679-08-8,

Terfenadine 203257-41-4
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CRH antagonists and skin mast cell degranulation inhibitors for treatment of stress-induced skin disease)

L8 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:338755 CAPLUS
DOCUMENT NUMBER: 122:150993
TITLE: Evaluation of chemopreventive agents in different mechanistic classes [by] using a rat tracheal epithelial cell culture transformation assay
AUTHOR(S): Arnold, Julia T.; Wilkinson, Betty P.; Sharma, Sheela; Steele, Vernon E.
CORPORATE SOURCE: Cellular and Molecular Toxicology Program, ManTech Environmental Technology, Research Triangle Park, NC, 27709, USA
SOURCE: Cancer Res. (1995), 55(3), 537-43
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The rat tracheal epithelial (RTE) cell focus inhibition assay was used to identify potential anticarcinogenic agents. Ninety-nine compds. were evaluated for their ability to inhibit benzo[a]pyrene-induced transformation of RTE cells. Freshly isolated RTE cells were exposed to benzo[a]pyrene alone or in combination with a substance to be tested. After 30 days in culture, transformed foci were scored and inhibition was quantitated. Foci formation was inhibited mainly by agents which modulate the initiation of carcinogenesis by altering drug-metabolizing enzymes, inhibiting the binding of benzo[a]pyrene to DNA, enhancing detoxification of activated carcinogens, or by inducing epithelial cell differentiation. Such agents include antioxidants, free-radical scavengers, glutathione S-transferase enhancers, vitamins, retinoids, and SH compds. Agents which inhibit ornithine decarboxylase and arachidonic acid metab. were not as effective. The RTE assay provides important data for compd. selection prior to whole-animal-screening assays in the development of carcinogenesis-inhibiting drugs.

IT 50-78-2, Acetylsalicylic acid 52-53-9, Verapamil 53-43-0, Dehydroepiandrosterone 53-86-1, Indomethacin 56-40-6, Glycine, biological studies 57-55-6, Propylene glycol, biological studies 58-27-5, Vitamin K3 58-73-1, **Diphenhydramine** 58-93-5, Hydrochlorothiazide 59-30-3, Folic acid, biological studies 59-51-8, DL-Methionine 59-67-6, Nicotinic acid, biological studies 60-23-1, Cysteamine 60-54-8, Tetracycline 60-82-2, Phloretin 60-87-7, Promethazine 61-73-4, Methylene blue 62-46-4, Thioctic acid 69-65-8, D-Mannitol 69-93-2, Uric acid, biological studies 73-31-4, Melatonin 74-79-3, Arginine, biological studies 77-52-1, Ursolic acid 79-63-0, Lanosterol 83-46-5, .beta.-Sitosterol 83-86-3, Inositol hexaphosphate 83-89-6, Quinacrine 87-11-6, Thiolutin 99-73-0, p-Bromophenacyl bromide 110-17-8, Fumaric acid, biological studies 121-32-4, Ethylvanillin 121-33-5, Vanillin 121-79-9, Propyl gallate 129-46-4, Sodium suramin 137-66-6, Ascorbyl palmitate 141-84-4, 2-Thioxo-4-thiazolidinone 146-17-8, Riboflavin 5'-phosphate 150-13-0, p-Aminobenzoic acid 150-76-5, p-Methoxyphenol 155-58-8, Rhapontin 305-84-0, Carnosine 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 458-37-7, Curcumin 471-53-4, .alpha.-Glycyrrhetinic acid 471-80-7, Steviol 479-61-8 480-16-0, Morin 486-12-4, Triprolidine 520-36-5, Apigenin 529-44-2, **Myricetin** 532-11-6, Anethole trithione 569-65-3, Meclizine 592-88-1, Diallyl sulfide 599-79-1, Sulfasalazine 622-78-6, Benzyl isothiocyanate 624-49-7, Dimethyl fumarate 1135-24-6, Ferulic acid 1191-85-1, ETYA 1449-05-4, .beta.-Glycyrrhetinic acid 2050-87-5, Diallyl trisulfide 2179-58-0, Allyl methyl disulfide 2257-09-2, Phenethylisothiocyanate 2609-46-3, Amiloride 3766-08-3,

DL-Palmitoylcarnitine 5697-56-3, Carbenoxolone 6385-02-0, Sodium meclofenamate 7235-40-7, .beta.-Carotene 7631-95-0, Sodium molybdate 7772-98-7, Sodium thiosulfate 8050-81-5, Simethicone 9003-39-8, Polyvinylpyrrolidone 10102-18-8, Sodium selenite 11103-57-4, Vitamin A 15826-37-6, Sodium cromolyn 17407-37-3, .alpha.-Tocopherol succinate 22916-47-8, Miconazole 25496-72-4, Glycerol monooleate 34135-85-8, Allyl methyl trisulfide 38194-50-2, Sulindac 52942-31-1, Etoperidone 55268-74-1, Praziquantel 57455-81-9, MAK 5 64224-21-1, Oltipraz 65595-90-6, N-(6-Aminohexyl)-5-chloro-1-naphthalenesulfonamide 75330-75-5, Lovastatin 75775-33-6, Purpurin 79331-86-5, MAK 4 91531-30-5, Antineoplaston A10 92285-01-3, Ajoene 110683-02-8 160371-97-1, BASF 47851 160372-07-6, Ro 16-9100 160372-08-7, Ro 19-2968 161279-28-3, BASF 47848 161279-29-4, BASF 47850 161279-30-7, BASF 51328
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(screening of drugs for inhibiting carcinogenesis by using rat tracheal epithelial cell culture)

L5 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2002 ACS

AB . . . selected from the group consisting of elastin, elastin fragments, elastin-glycolic acid, collagen, collagen fragments, yeast exts., skin respiratory factor, glucosamine, **glucosamine sulfate**, **hyaluronic acid**, hyaluronate, **chondroitin sulfate**, cholic acid, deoxycholic acid, ginseng ext., aloe vera powder, aloe vera oil, RNA and DNA fragments, ascorbyl palmitate, ascorbic acid,. . . acid, urea, sodium lactate, lactate, glycerin, sorbitol, oils of borage, evening primrose, black currant, almond and canola, vanishing cream, cholesterol, **flavonoids**, witch hazel, chamomile, parsley, hibiscus, capric and caprylic triglycerides, amino acids, allantoin, sodium, calcium, potassium, phosphate, chloride, sodium lactate, alpha. . .

IT Amino acids, biological studies
Candelilla wax
Canola oil
Carnauba wax
Ceramides
Cerebrosides
Cocoa butter
Coconut oil
Collagens, biological studies
Elastins
Flavonoids
Jojoba oil
Lanolin
Lecithins
Paraffin waxes, biological studies
Polysiloxanes, biological studies
Proanthocyanidins
Safflower oil
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical compns. contg. lecithins and moisturizers for treatment skin disorders)

IT 50-21-5, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, L-Ascorbic acid, biological studies 56-81-5, 1,2,3-Propanetriol, biological studies 57-13-6, Urea, biological studies 57-88-5, Cholesterol, biological studies 64-17-5, Ethanol, biological studies 69-72-7, biological studies 72-17-3, Sodium lactate 77-92-9, biological studies 79-14-1, biological studies 79-81-2, Retinol palmitate 81-25-4, Cholic acid 83-44-3, Deoxycholic acid 97-59-6, Allantoin 110-27-0, Isopropyl myristate 111-02-4, Squalene 124-06-1, Ethyl myristate 137-66-6, Ascorbyl palmitate 142-91-6, Isopropyl palmitate 143-28-2, Oleyl alcohol 149-87-1, DL-Pyroglutamic acid 593-31-7, Selachyl alcohol 667-83-4 1406-18-4, Vitamin E 3079-28-5, N-Decylmethyl sulfoxide 3416-24-8, Glucosamine 4602-84-0, Farnesol 5333-42-6 9004-61-9, **Hyaluronic acid** 9005-65-6, Polysorbate 80 9005-79-2, Glycogen,, biological studies 9006-65-9, Dimethicone 9007-28-7, **Chondroitin sulfate** 16351-10-3 29031-19-4, **Glucosamine sulfate**. 31566-31-1, Glycerol monostearate 36148-84-2, Vitamin E linoleate 43119-47-7, Vitamin E nicotinate, 106392-12-5, Poloxamer 407
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical compns. contg. lecithins and moisturizers for treatment skin disorders)

ACCESSION NUMBER: 1999:561584 HCAPLUS
DOCUMENT NUMBER: 131:175090
TITLE: Topical compositions containing lecithins and moisturizers for the treatment skin disorders
INVENTOR(S): Crandall, Wilson Trafton

PATENT ASSIGNEE(S): USA
SOURCE: U.S., 9 pp., Cont.-in-part of U.S. 5,639,740.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5945409	A	19990831	US 1997-876764	19970616
US 5639740	A	19970617	US 1995-403241	19950310
AU 9725503	A1	19981020	AU 1997-25503	19970325
WO 9842309	A1	19981001	WO 1998-US5910	19980325
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9867750	A1	19981020	AU 1998-67750	19980325
US 6316428	B1	20011113	US 1999-383779	19990826

PRIORITY APPLN. INFO.:
US 1995-403241 A2 19950310
WO 1997-US4985 A 19970325
US 1997-876764 A 19970616
WO 1998-US5910 W 19980325

AB The present invention comprises methods and compns. for topically treating and moisturizing keratinous structures of humans and animals including skin, hair, fingernails, toenails, hooves, and horns. The compn. comprises water-dispersible lecithin and compds. selected from the group consisting of elastin, elastin fragments, elastin-glycolic acid, collagen, collagen fragments, yeast exts., skin respiratory factor, glucosamine, **glucosamine sulfate**, **hyaluronic acid**, hyaluronate, **chondroitin sulfate**, cholic acid, deoxycholic acid, ginseng ext., aloe vera powder, aloe vera oil, RNA and DNA fragments, ascorbyl palmitate, ascorbic acid, retinol palmitate, dehydroxycholesterol, vitamin E, vitamin E lineolate, panthenol Et ether, glycerol ceramides, glycogen, DL-pyroglutamic acid, urea, sodium lactate, lactate, glycerin, sorbitol, oils of borage, evening primrose, black currant, almond and canola, vanishing cream, cholesterol, **flavonoids**, witch hazel, chamomile, parsley, hibiscus, capric and caprylic triglycerides, amino acids, allantoin, sodium, calcium, potassium, phosphate, chloride, sodium lactate, alpha hydroxy acids, cocoa butter, coconut oil, jojoba oil, safflower oil, wheat germ oil, sesame oil, selachyl alc., shark oil, cerebrosides, proanthocyanidin, farnesol, candelilla, carnauba wax, vitamin E nicotinate, manganese ascorbate, zinc, oleyl alc., polysorbate 80, spermaceti, glycerol monostearate, beeswax, silicone oil, paraffin wax, ozokerite, and PEG 75 lanolin.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2002 ACS
IT Amino acids, biological studies
Carboxylic acids, biological studies
Carnauba wax
Cerebrosides
Cocoa butter
Coconut oil
Collagens, biological studies
Elastins
Evening primrose oil

Flavonoids
Glycerides, biological studies
Jojoba oil
Lanolin
Lecithins
Paraffin waxes, biological studies
Polysiloxanes, biological studies
Proanthocyanidins
Safflower oil
Sesame oil
Tocopherols
Wheat germ oil
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical moisturizing compn. contg. water-dispersible lecithin)

IT 50-21-5, Lactic acid, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, Ascorbic acid, biological studies 56-81-5, Glycerol, biological studies 57-13-6, Urea, biological studies 57-88-5, Cholesterol, biological studies 69-72-7, Salicylic acid, biological studies 72-17-3, Sodium lactate 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 79-81-2, Retinol palmitate 81-25-4, Cholic acid 83-44-3, Deoxycholic acid 97-59-6, Allantoin 111-02-4, Squalene 137-66-6, Ascorbyl palmitate 143-28-2, Oleyl alcohol 149-87-1, DL-Pyroglutamic acid 434-16-2, 7-Dehydrocholesterol 593-31-7, Selachyl alcohol 1406-18-4, Vitamin e 3416-24-8, Glucosamine 4602-84-0, Farnesol 9004-61-9, **Hyaluronic acid** 9005-65-6, Polysorbate 80 9005-79-2, Glycogen, biological studies 9006-65-9, Dimethicone 9007-28-7, **Chondroitin sulfate** 10527-68-1 16351-10-3 29031-19-4, **Glucosamine sulfate** 31566-31-1, Glycerol monostearate 36148-84-2, Vitamin e linoleate 43119-47-7, Vitamin e nicotinate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical moisturizing compn. contg. water-dispersible lecithin)

ACCESSION NUMBER: 1998:672448 HCAPLUS
DOCUMENT NUMBER: 129:280777
TITLE: Topical moisturizing composition containing water-dispersible lecithin
INVENTOR(S): Crandall, Wilson T.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9842309	A1	19981001	WO 1998-US5910	19980325
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9725503	A1	19981020	AU 1997-25503	19970325
US 5945409	A	19990831	US 1997-876764	19970616
AU 9867750	A1	19981020	AU 1998-67750	19980325

PRIORITY APPLN. INFO.: US 1997-876764 A 19970616

US 1995-403241 A2 19950310
WO 1997-US4985 A 19970325
WO 1998-US5910 W 19980325

AB Methods and compns. for topically treating and moisturizing keratinous structures of humans and animals including skin, hair, fingernails, toenails, hooves and horns are disclosed. The methods and compns. comprise applying to the keratinous tissue a water-dispersible lecithin. A soln. of 20 g soy lecithin in 20 mL iso-Pr palmitate was mixed with 2 mL of almond oil and 80 mL of 20% Pluronic soln. to obtain a gel. The moisturizing effect of the gel on the skin of volunteers was studied.

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

AB . . . selected from the group consisting of elastin, elastin fragments, elastin-glycolic acid, collagen, collagen fragments, yeast exts., skin respiratory factor, glucosamine, **glucosamine sulfate**, **hyaluronic acid**, hyaluronate, **chondroitin sulfate**, cholic acid, deoxycholic acid, ginseng ext., aloe vera powder, aloe vera oil, RNA and DNA fragments, ascorbyl palmitate, ascorbic acid,. . . acid, urea, sodium lactate, lactate, glycerin, sorbitol, oils of borage, evening primrose, black currant, almond and canola, vanishing cream, cholesterol, **flavonoids**, witch hazel, chamomile, parsley, hibiscus, capric and caprylic triglycerides, amino acids, allantoin, sodium, calcium, potassium, phosphate, chloride, sodium lactate, alpha. . .

IT Amino acids, biological studies
Candelilla wax
Canola oil
Carnauba wax
Ceramides
Cerebrosides
Cocoa butter
Coconut oil
Collagens, biological studies
Elastins
Flavonoids
Jojoba oil
Lanolin
Lecithins
Paraffin waxes, biological studies
Polysiloxanes, biological studies
Proanthocyanidins
Safflower oil
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical compns. contg. lecithins and moisturizers for treatment skin disorders)

IT 50-21-5, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, L-Ascorbic acid, biological studies 56-81-5, 1,2,3-Propanetriol, biological studies 57-13-6, Urea, biological studies 57-88-5, Cholesterol, biological studies 64-17-5, Ethanol, biological studies 69-72-7, biological studies 72-17-3, Sodium lactate 77-92-9, biological studies 79-14-1, biological studies 79-81-2, Retinol palmitate 81-25-4, Cholic acid 83-44-3, Deoxycholic acid 97-59-6, Allantoin 110-27-0, Isopropyl myristate 111-02-4, Squalene 124-06-1, Ethyl myristate 137-66-6, Ascorbyl palmitate 142-91-6, Isopropyl palmitate 143-28-2, Oleyl alcohol 149-87-1, DL-Pyroglutamic acid 593-31-7, Selachyl alcohol 667-83-4 1406-18-4, Vitamin E 3079-28-5, N-Decylmethyl sulfoxide 3416-24-8, Glucosamine 4602-84-0, Farnesol 5333-42-6 9004-61-9, **Hyaluronic acid** 9005-65-6, Polysorbate 80 9005-79-2, Glycogen,, biological studies 9006-65-9, Dimethicone 9007-28-7, **Chondroitin sulfate** 16351-10-3 29031-19-4, **Glucosamine sulfate**. 31566-31-1, Glycerol monostearate 36148-84-2, Vitamin E linoleate

43119-47-7, Vitamin E nicotinate, 106392-12-5, Poloxamer 407
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical compns. contg. lecithins and moisturizers for treatment skin disorders)

ACCESSION NUMBER: 1999:561584 CAPLUS
DOCUMENT NUMBER: 131:175090
TITLE: Topical compositions containing lecithins and moisturizers for the treatment skin disorders
INVENTOR(S): Crandall, Wilson Trafton
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 9 pp., Cont.-in-part of U.S. 5,639,740.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5945409	A	19990831	US 1997-876764	19970616
US 5639740	A	19970617	US 1995-403241	19950310
AU 9725503	A1	19981020	AU 1997-25503	19970325
WO 9842309	A1	19981001	WO 1998-US5910	19980325
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9867750	A1	19981020	AU 1998-67750	19980325
US 6316428	B1	20011113	US 1999-383779	19990826

PRIORITY APPLN. INFO.:

US 1995-403241	A2	19950310
WO 1997-US4985	A	19970325
US 1997-876764	A	19970616
WO 1998-US5910	W	19980325

AB The present invention comprises methods and compns. for topically treating and moisturizing keratinous structures of humans and animals including skin, hair, fingernails, toenails, hooves, and horns. The compn. comprises water-dispersible lecithin and compds. selected from the group consisting of elastin, elastin fragments, elastin-glycolic acid, collagen, collagen fragments, yeast exts., skin respiratory factor, glucosamine, **glucosamine sulfate**, **hyaluronic acid**, hyaluronate, **chondroitin sulfate**, cholic acid, deoxycholic acid, ginseng ext., aloe vera powder, aloe vera oil, RNA and DNA fragments, ascorbyl palmitate, ascorbic acid, retinol palmitate, dehydroxycholesterol, vitamin E, vitamin E lineolate, panthenol Et ether, glycerol ceramides, glycogen, DL-pyroglutamic acid, urea, sodium lactate, lactate, glycerin, sorbitol, oils of borage, evening primrose, black currant, almond and canola, vanishing cream, cholesterol, **flavonoids**, witch hazel, chamomile, parsley, hibiscus, capric and caprylic triglycerides, amino acids, allantoin, sodium, calcium, potassium, phosphate, chloride, sodium lactate, alpha hydroxy acids, cocoa butter, coconut oil, jojoba oil, safflower oil, wheat germ oil, sesame oil, selachyl alc., shark oil, cerebrosides, proanthocyanidin, farnesol, candelilla, carnauba wax, vitamin E nicotinate, manganese ascorbate, zinc, oleyl alc., polysorbate 80, spermaceti, glycerol monostearate, beeswax, silicone oil, paraffin wax, ozokerite, and PEG 75 lanolin.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS

IT Amino acids, biological studies
Carboxylic acids, biological studies
Carnauba wax
Cerebrosides
Cocoa butter
Coconut oil
Collagens, biological studies
Elastins
Evening primrose oil
Flavonoids
Glycerides, biological studies
Jojoba oil
Lanolin
Lecithins
Paraffin waxes, biological studies
Polysiloxanes, biological studies
Proanthocyanidins
Safflower oil
Sesame oil
Tocopherols
Wheat germ oil
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical moisturizing compn. contg. water-dispersible lecithin)

IT 50-21-5, Lactic acid, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, Ascorbic acid, biological studies 56-81-5, Glycerol, biological studies 57-13-6, Urea, biological studies 57-88-5, Cholesterol, biological studies 69-72-7, Salicylic acid, biological studies 72-17-3, Sodium lactate 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 79-81-2, Retinol palmitate 81-25-4, Cholic acid 83-44-3, Deoxycholic acid 97-59-6, Allantoin 111-02-4, Squalene 137-66-6, Ascorbyl palmitate 143-28-2, Oleyl alcohol 149-87-1, DL-Pyroglutamic acid 434-16-2, 7-Dehydrocholesterol 593-31-7, Selachyl alcohol 1406-18-4, Vitamin e 3416-24-8, Glucosamine 4602-84-0, Farnesol 9004-61-9, **Hyaluronic acid** 9005-65-6, Polysorbate 80 9005-79-2, Glycogen, biological studies 9006-65-9, Dimethicone 9007-28-7, **Chondroitin sulfate** 10527-68-1 16351-10-3 29031-19-4, **Glucosamine sulfate** 31566-31-1, Glycerol monostearate 36148-84-2, Vitamin e linoleate 43119-47-7, Vitamin e nicotinate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical moisturizing compn. contg. water-dispersible lecithin)

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TITLE: Topical moisturizing composition containing water-dispersible lecithin
INVENTOR(S): Crandall, Wilson T.
PATENT ASSIGNEE(S): USA
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KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
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RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
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AU 9725503	A1	19981020	AU 1997-25503	19970325
US 5945409	A	19990831	US 1997-876764	19970616
AU 9867750	A1	19981020	AU 1998-67750	19980325

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	US 1995-403241	A2	19950310
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	WO 1998-US5910	W	19980325

AB Methods and compns. for topically treating and moisturizing keratinous structures of humans and animals including skin, hair, fingernails, toenails, hooves and horns are disclosed. The methods and compns. comprise applying to the keratinous tissue a water-dispersible lecithin. A soln. of 20 g soy lecithin in 20 mL iso-Pr palmitate was mixed with 2 mL of almond oil and 80 mL of 20% Pluronic soln. to obtain a gel. The moisturizing effect of the gel on the skin of volunteers was studied.